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Effective: 23-Sep-2010

Expires: 18-Nov-2010



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GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the FAA Department of Transportation, National Aeronautical Navigation Services, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial-Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE: <http://nfdc.faa.gov/portal/airportchanges.do>

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NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the "cut-off" dates listed below to assure publication on the desired effective date.

Effective Date	Airport Information	Airspace Information*
	Cut-off date	Cut-off date
23 Sep 10	11 Aug 10	22 Jul 10
18 Nov 10	6 Oct 10	16 Sep 10
13 Jan 11	1 Dec 10	11 Nov 10
10 Mar 11	26 Jan 11	6 Jan 11
5 May 11	23 Mar 11	3 Mar 11
30 Jun 11	18 May 11	28 Apr 11

*Including changes to preferred routes and graphic depictions on charts.

FOR CHARTING ERRORS CONTACT:

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Silver Spring, MD 20910-3281
Telephone 1-800-626-3677
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Frequently asked questions (FAQs) are answered on our website at <http://aeronav.faa.gov>.
See the FAQs prior to contact via toll free number.

FOR PROCUREMENT CONTACT:

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Telephone 1-800-638-8972
Fax 301-436-6829
or any authorized chart agent.

New or Changed Information—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.

GENERAL INFORMATION

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ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example—"req" may mean "request", "requesting", "requested", or "requests").

AAF	Army Air Field	byd	beyond
AB	Airbase	C	Commercial Circuit (Telephone)
abv	above	CGAF	Coast Guard Air Facility
ACC	Air Combat Command; Area Control Center	CGAS	Coast Guard Air Station
acft	aircraft	CIV	Civil
ADCC	Air Defense Control Center	clsd	closed
AER	approach end rwy	comd	command
AFB	Air Force Base	CONUS	Continental United States
AFHP	Air Force Heliport	CSTMS	Customs
afld	airfield	ctc	contact
AFOD	US Army Flight Operations Detachment	ctl	control
AFRC	Armed Forces Reserve Center/Air Force Reserve Command	dalgt	daylight
AFSS	Automated Flight Service Station	Dec	December
AG	Agriculture	DIAP	DoD Instrument Approach Procedure
A-GEAR	Arresting Gear	DoD	Department of Defense
AGL	above ground level	DSN	Defense Switching Network (Telephone)
AHP	Army heliport	dsplcd	displaced
ALS	Approach Light System	durn	duration
alt	altitude	eff	effective
AMC	Air Mobility Command	emerg	emergency
ANGS	Air National Guard Station	EOR	End of Runway
apch	approach	ETA	Estimated Time of Arrival
Apr	April	ETD	Estimated Time of Departure
APU	Auxiliary Power Unit	exc	except
ARB	Air Reserve Base	extd	extend
arpt	airport	FBO	fixed-base operator
ARS	Air Reserve Station	Feb	February
AS	Air Station	fld	field
ASDE-X	Airport Surface Detection Equipment—Model X	FLIP	Flight Information Publication
ASU	Aircraft Starting Unit	flt	flight
ATC	Air Traffic Control	flw	follow
ATCT	Airport Traffic Control Tower	Fri	Friday
Aug	August	FSS	Flight Service Station
AUW	All Up Weight (gross weight)	GA	glide angle
avbl	available	GCA	Ground Controlled Approach
bcn	beacon	GS	glide slope
blo	below	haz	hazard
		HQ	Headquarters

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

hr	hour	npi	non precision instrument
IAP	Instrument Approach Procedure	NS ABTMT	Noise Abatement
ICAO	International Civil Aviation Organization	NSTD	nonstandard
IFR	Instrument Flight Rules	ntc	notice
ILS	Instrument Landing System	obsn	observation
IM	Inner Marker	Oct	October
IMG	Immigration	OLF	Outlying Field
incr	increase	opr	operate, operator, operational
indef	indefinite	ops	operations
ints	intensity	OTS	out of service
invo	in the vicinity of	ovrn	overrun
IMC	Instrument Meteorological Conditions	PAEW	personnel and equipment working
Jan	January	pat	pattern
JASU	Jet Aircraft Starting Unit	p-line	power line
JOAP	Joint Oil Analysis Program	PMSV	Pilot-to-Metro Service
JOSAC	Joint Operational Support Airlift Center	POL	Petrol, Oils and Lubricants
JRB	Joint Reserve Base	PPR	prior permission required
Jul	July	PRM	Precision Runway Monitoring
Jun	June	PTD	Pilot to Dispatcher
Kt	Knots	RAMCC	Regional Air Movement Control Center
LAA	Local Airport Advisory	req	request
LAHSO	Land and Hold Short Operations	rgt tfc	right traffic
lbs	pounds	RON	Remain Overnight
ldg	landing	rqr	require
Igtd	lighted	rstd	restricted
Igts	lights	RSRS	reduced same runway separation
LMM	Compass locator at Middle Marker ILS	rwy	runway
LOC	Localizer	Sat	Saturday
LOM	Compass locator at Outer Marker ILS	SELF	Strategic Expeditionary Landing Field
ltd	limited	Sep	September
MACC	Military Area Control Center	SFA	Single Frequency Approach
Mar	March	sfc	surface
MCAF	Marine Corps Air Facility	SFRA	Special Flight Rules Area
MCALF	Marine Corps Auxiliary Landing Field	SOAP	Spectrometric Oil Analysis Program
MCAS	Marine Corps Air Station	SOF	Supervisor of Flying
MCB	Marine Corps Base	SPB	Seaplane Base
med	medium	SR	sunrise
METRO	Pilot-to-Metro voice call	SS	sunset
Mil	military	std	standard
min	minute	Sun	Sunday
MLS	Microwave Landing System	svc	service
MM	Middle Marker of ILS	tfc	traffic
Mon	Monday	thld	threshold
MP	Maintenance Period	Thu	Thursday
MSL	mean sea level	tkf	take-off
MSAW	minimum safe altitude warning	tmpry	temporary
NAAS	Naval Auxiliary Air Station	tran	transient
NADC	Naval Air Development Center	Tue	Tuesday
NADEP	Naval Air Depot	twr	tower
NAEC	Naval Air Engineering Center	twy	taxiway
NAES	Naval Air Engineering Station	UC	Under Construction
NAF	Naval Air Facility	USA	United States Army
NALCO	Naval Air Logistics Control Office	USAF	United States Air Force
NALO	Navy Air Logistics Office	USCG	United States Coast Guard
NALF	Naval Auxiliary Landing Field	USN	United States Navy
NAS	Naval Air Station	V	Defense Switching Network (telephone, formerly AUTOVON)
NAWC	Naval Air Warfare Center	VFR	Visual Flight Rules
NAWS	Naval Air Weapons Station	VIP	Very Important Person
ngt	night	VMC	Visual Meteorological Conditions
NOLF	Naval Outlying Field	Wed	Wednesday
Nov	November	wx	weather

SAMPLE

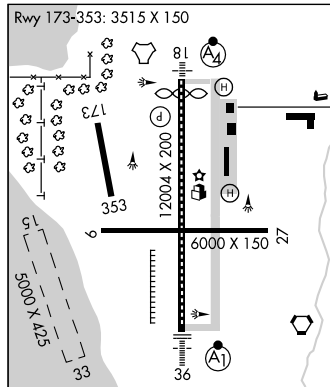
① CITY NAME
 ② AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC-6(-5DT) N34°41.93' W99°20.20' JACKSONVILLE
 ③ 200 B S4 FUEL 100 OX 1 TPA-1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. COPTER
 ④ ①① ①② ①③ ①④ ①⑤ ①⑥ ①⑦ ①⑧ ①⑨ ①⑩ ①⑪ ①⑫ ①⑬ ①⑭ ①⑮ ①⑯ ①⑰ ①⑱ ①⑲ ①⑳ ①㉑
 ②① RWY 18-36: H12004X200 (ASPH-CONC-GRVD)
 S-90, D-160, 2D-300 PCN 80 R/B/W/T HIRL CL
 RWY 18: LDIN: MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0° TCH 36'.
 Thld dsplcd 300'. Trees. Rgt tfe. 0.3% up.
 RWY 36: ALSF1. 0.4% down.
 RWY 09-27: H6000X150 (ASPH) MIRL
 RWY 173-353: H3515X150 (ASPH-PFC) AUW PCN 59 F/A/W/T
 LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 18	09-27	6500
RWY 36	09-27	5400

 RUNWAY DECLARED DISTANCE INFORMATION
 RWY 18: TORA-12004 TODA-12704 ASDA-11704 LDA-11504
 RWY 36: TORA-12004 TODA-12004 ASDA-12004 LDA-11704
 ②② ARRESTING GEAR/SYSTEM
 RWY 18 → HOOK E5 (65' OVRN) BAK-14 BAK-12B (1650')
 BAK-14 BAK-12 (B) (1087') HOOK E5 (74' OVRN) ← RWY 36
 ②③ MILITARY SERVICE: A-GEAR E-5 connected on dep end, disconnected on
 apch end. JASU 3(AM32A-60) 2(A/M32A-86)
 ②④
 ②⑤ FUEL J8(Mil) (NC-100, A) FLUID W SP PRESAIR LOX ← ②⑥
 OIL O-128 TRAN ALERT Avbl 1300-0200Z†, svc limited weekends.
 ②⑦ ②⑧
 ②⑨ AIRPORT REMARKS: Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200-0300Z†. Parachute
 Jumping. Deer invov arpt. Heavy jumbo jet training surface to 9000'. Twy A clsd indef. Flight Notification Service
 (ADCUS) avbl.
 ③① MILITARY REMARKS: ANG PPR/Official Business Only. Base OPS DSN 638-4390, C503-335-4222. Ctc Base OPS 15
 minutes prior to ldg and after dep. Limited tran parking.
 ③② WEATHER DATA SOURCES: AWOS-1 120.3 (202) 426-8000. LLWAS.
 COMMUNICATIONS: SFA ATIS 127.25 273.5 (202) 426-8003 UNICOM 122.95 PTD 372.2
 NAME FSS (ORL) on arpt. 123.65 122.65 122.2
 NAME RCO 112.2T 112.1R (NAME RADIO)
 ③ NAME APP/DEP CON 128.35 257.725 (1200-0400Z†)
 TOWER 119.65 255.6 (1200-0400Z†) GND CON 121.7 GCO 135.075 (ORLANDO CLNC) CLNC DEL 125.55
 NAME COMD POST (GERONIMO) 311.0 321.4 6761 PMSV METRO 239.8 NAME OPS 257.5
 ③③ AIRSPACE: CLASS B See VFR Terminal Area Chart.
 ③④ RADIO AIDS TO NAVIGATION: NOTAM FILE ORL. VHF/DF etc FSS.
 (H) VORTAC 112.2 MCO Chan 59 N28°32.55' W81°20.12' at fld. 1110/8E.
 (H) TACAN Chan 29 CBU (109.2) N28°32.65' W81°21.12' at fld. 1115/8E.
 HERNY NDB (LOM) 221 OR N28°37.40' W81°21.05' 177° 5.4 NM to fld.
 ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.
 ASR/PAR (1200-0400Z†)
 ③⑤ COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

 HELIPAD H1: H100X75 (ASPH)
 HELIPAD H2: H60X60 (ASPH)
 HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

 187 TPA 1000(813)
 WATERWAY 15-33: 5000X425 (WATER)
 SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of
 arpt not visible from twr and are required to ctc twr.



All bearings and radials are magnetic unless otherwise specified.
 All mileages are nautical unless otherwise noted.
 All times are Coordinated Universal Time (UTC) except as noted.
 All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.
 The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes
 is considered equivalent to World Geodetic System 1984 (WGS 84).

10

SKETCH LEGEND

RUNWAYS/LANDING AREAS

Hard Surfaced	
Metal Surface	
Sod, Gravel, etc.	
Light Plane,	
Ski Landing Area or Water	
Under Construction	
Closed	
Helicopter Landings Area	
Displaced Threshold	
Taxiway, Apron and Stopways . .	

MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings	
Power Lines	
Fence	
Towers	
Tanks	
Oil Well	
Smoke Stack	
Obstruction	
Controlling Obstruction	
Trees	
Populated Places	
Cuts and Fills	
Cliffs and Depressions	
Ditch	
Hill	

RADIO AIDS TO NAVIGATION

VORTAC		VOR	
VOR/DME		NDB	
TACAN		NDB/DME	

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon	
Wind Cone	
Landing Tee	
Tetrahedron	
Control Tower	

APPROACH LIGHTING SYSTEMS

A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g., (A1) Negative symbology, e.g., (A1) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting	
(A) Approach Lighting System ALSF-2 . .	
(A1) Approach Lighting System ALSF-1 . .	
(A2) Short Approach Lighting System SALS/SALSF	
(A3) Simplified Short Approach Lighting System (SSALR) with RAIL	
(A4) Medium Intensity Approach Lighting System (MALS and MALSF)/(SSALS and SSALF)	
(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL	
(Y) Omnidirectional Approach Lighting System (ODALS)	
(D) Navy Parallel Row and Cross Bar . .	
(F) Air Force Overrun	
(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided	
(V2) Pulsating Visual Approach Slope Indicator (PVASI)	
(V3) Visual Approach Slope Indicator with a threshold crossing height to accommodate long bodied or jumbo aircraft	
(V4) Tri-color Visual Approach Slope Indicator (TRCV)	
(V5) Approach Path Alignment Panel (APAP)	
(P) Precision Approach Path Indicator (PAPI)	

LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Navajids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

① CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

② ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

③ LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter "O".

④ OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A	US Army	MC	Marine Corps
AFRC	Air Force Reserve Command	N	Navy
AF	US Air Force	NAF	Naval Air Facility
ANG	Air National Guard	NAS	Naval Air Station
AR	US Army Reserve	NASA	National Air and Space Administration
ARNG	US Army National Guard	P	US Civil Airport Wherein Permit Covers
CG	US Coast Guard		Use by Transient Military Aircraft
CIV/MIL	Joint Use Civil/Military	PVT	Private Use Only (Closed to the Public)
DND	Department of National Defense Canada		

⑤ AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

⑥ TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as "Z" time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC-5(-4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (-4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15-Aug 31 0630-1700Z, Sep 1-Apr 14 0600-1700Z.

⑦ GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

⑧ CHARTS

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER. IFR Gulf of Mexico West and IFR Gulf of Mexico Central will be depicted as GOMW and GOMC.

⑨ INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAM

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5-4-5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

⑩ AIRPORT SKETCH

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

⑪ ELEVATION

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as "00". When elevation is below sea level a minus "-" sign will precede the figure.

⑫ ROTATING LIGHT BEACON

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

⑬ SERVICING—CIVIL

S1: Minor airframe repairs.	S5: Major airframe repairs.
S2: Minor airframe and minor powerplant repairs.	S6: Minor airframe and major powerplant repairs.
S3: Major airframe and minor powerplant repairs.	S7: Major powerplant repairs.
S4: Major airframe and major powerplant repairs.	S8: Minor powerplant repairs.

⑭ FUEL

CODE	FUEL	CODE	FUEL
80	Grade 80 gasoline (Red)	B+	Jet B, Wide-cut, turbine fuel with FS-II*, FP** minus 50° C.
100	Grade 100 gasoline (Green)	J4 (JP4)	(JP-4 military specification) FP** minus 58° C.
100LL	100LL gasoline (low lead) (Blue)	J5 (JP5)	(JP-5 military specification) Kerosene with FS-11, FP** minus 46° C.
115	Grade 115 gasoline (115/145 military specification) (Purple)	J8 (JP8)	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47° C.
A	Jet A, Kerosene, without FS-II*, FP** minus 40° C.	J8+100	(JP-8 military specification) Jet A-1, Kerosene with FS-II*, FP** minus 47° C, with-fuel additive package that improves thermo stability characteristics of JP-8.
A+	Jet A, Kerosene, with FS-II*, FP** minus 40° C.	J	(Jet Fuel Type Unknown)
A1	Jet A-1, Kerosene, without FS-II*, FP** minus 47° C.	MOGAS	Automobile gasoline which is to be used as aircraft fuel.
A1+	Jet A-1, Kerosene with FS-II*, FP** minus 47° C.		
B	Jet B, Wide-cut, turbine fuel without FS-II*, FP** minus 50° C.		

*(Fuel System Icing Inhibitor)

** (Freeze Point)

NOTE: Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as "MOGAS", however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

⑮ OXYGEN—CIVIL

OX 1 High Pressure	OX 3 High Pressure—Replacement Bottles
OX 2 Low Pressure	OX 4 Low Pressure—Replacement Bottles

⑯ TRAFFIC PATTERN ALTITUDE

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as "TPA—See Remarks" and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

⑪ AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

Northeast Sector (New England and Atlantic States—ME to MD)

407-975-1740

Southeast Sector (Atlantic States—DC, WV, VA to FL)

407-975-1780

Central Sector (Interior of the US, including Gulf states—MS, AL, LA)

407-975-1760

Southwest East Sector (OK and eastern TX)

407-975-1840

Southwest West Sector (Western TX, NM and AZ)

407-975-1820

Pacific Sector (WA, OR, CA, HI and AK)

407-975-1800

⑫ CERTIFICATED AIRPORT (14 CFR PART 139)

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

14 CFR PART 139 CERTIFICATED AIRPORTS AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

14 CFR—PART 139 CERTIFICATED AIRPORTS

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

<i>Airport Index</i>	<i>Required No. Vehicles</i>	<i>Aircraft Length</i>	<i>Scheduled Departures</i>	<i>Agent + Water for Foam</i>
A	1	<90'	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H ₂ O
B	1 or 2	≥90', <126' ----- ≥126', <159'	≥5 ----- <5	Index A + 1500 gal H ₂ O
C	2 or 3	≥126', <159' ----- ≥159', <200'	≥5 ----- <5	Index A + 3000 gal H ₂ O
D	3	≥159', <200' ----- >200'	<5	Index A + 4000 gal H ₂ O
E	3	≥200'	≥5	Index A + 6000 gal H ₂ O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H₂O—Water; DC—Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

⑬ NOTAM SERVICE

All public use landing areas are provided NOTAM “D” (distant dissemination) and NOTAM “L” (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. “NOTAM FILE IAD”. See AIM, Basic Flight Information and

ATC Procedures for detailed description of NOTAM's. Current NOTAMs are available from Flight Service Stations at 1-800-WX-BRIEF. Real time Military NOTAMs are available using the DoD Internet NOTAM Distribution System (DINS) www.notams.jcs.mil.

② FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

② RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as Ultralight or assault strips. Assault strips are shown by magnetic bearing.

RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter "H" indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt-concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat	(GRVL)—Gravel, or cinders	(PSP)—Pierced steel plank
(ASPH)—Asphalt	(MATS)—Pierced steel planking,	(RFSC)—Rubberized friction seal coat
(CONC)—Concrete	landing mats, membranes	(TURF)—Turf
(DIRT)—Dirt	(PEM)—Part concrete, part asphalt	(TRTD)—Treated
(GRVD)—Grooved	(PFC)—Porous friction courses	(WC)—Wire combed

RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340-600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.

SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).

PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

- (1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.
- (2) The type of pavement:
 - R — Rigid
 - F — Flexible
- (3) The pavement subgrade category:
 - A — High
 - B — Medium
 - C — Low
 - D — Ultra-low
- (4) The maximum tire pressure authorized for the pavement:
 - W — High, no limit
 - X — Medium, limited to 217 psi
 - Y — Low, limited to 145 psi
 - Z — Very low, limited to 73 psi
- (5) Pavement evaluation method:
 - T — Technical evaluation
 - U — By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.

LIRL—Low Intensity Runway Lights.

MIRL—Medium Intensity Runway Lights.

HIRL—High Intensity Runway Lights.

RAIL—Runway Alignment Indicator Lights.

REIL—Runway End Identifier Lights.

CL—Centerline Lights.

TDZL—Touchdown Zone Lights.

ODALS—Omni Directional Approach Lighting System.

AF OVRN—Air Force Overrun 1000' Standard Approach Lighting System.

LDIN—Lead-In Lighting System.

MALS—Medium Intensity Approach Lighting System.

MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.

MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.

NOTE: Civil ALSF2 may be operated as SALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the "Remarks" portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

SALS—Short Approach Lighting System.

SALSF—Short Approach Lighting System with Sequenced Flashing Lights.

SSALS—Simplified Short Approach Lighting System.

SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.

SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.

ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.

ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.

ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.

SF—Sequenced Flashing Lights.

OLS—Optical Landing System.

WAVE—OFF.

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PNIL	APAP on left side of runway	PNIR	APAP on right side of runway
PAPI—Precision Approach Path Indicator			
P2L	2-identical light units placed on left side of runway	P4L	4-identical light units placed on left side of runway
P2R	2-identical light units placed on right side of runway	P4R	4-identical light units placed on right side of runway
PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.			
PSIL	PVASI on left side of runway	PSIR	PVASI on right side of runway
SAVASI—Simplified Abbreviated Visual Approach Slope Indicator			
S2L	2-box SAVASI on left side of runway	S2R	2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

TRIL	TRCV on left side of runway	TRIR	TRCV on right side of runway
VASI—Visual Approach Slope Indicator			
V2L	2-box VASI on left side of runway	V6L	6-box VASI on left side of runway
V2R	2-box VASI on right side of runway	V6R	6-box VASI on right side of runway
V4L	4-box VASI on left side of runway	V12	12-box VASI on both sides of runway
V4R	4-box VASI on right side of runway	V16	16-box VASI on both sides of runway

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., –GA 3.5° TCH 37'.

PILOT CONTROL OF AIRPORT LIGHTING

<u>Key Mike</u>	<u>Function</u>
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-Off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-Off)

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07–122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, “Basic Flight Information and ATC Procedures,” for detailed description of pilot control of airport lighting.

RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. “Rgt tfc”—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for “Land and Hold Short Operations.” These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet. Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold–short operations and markings.

RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take-off.

TODA—Take-off Distance Available. The length of the take-off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take-off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

22 ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a–gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A–Gear which has a bi–direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A–Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

BI-DIRECTIONAL CABLE (B)

<u>TYPE</u>	<u>DESCRIPTION</u>
BAK-9	Rotary friction brake.
BAK-12A	Standard BAK-12 with 950 foot run out, 1-inch cable and 40,000 pound weight setting. Rotary friction brake.
BAK-12B	Extended BAK-12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.
E28	Rotary Hydraulic (Water Brake).
M21	Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK-14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one-half seconds to fully raise the cable.)

UNI-DIRECTIONAL CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>
MB60	Textile brake—an emergency one-time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.
E5/E5-1/E5-3	Chain Type. At USN/USMC stations E-5 A-GEAR systems are rated, e.g., E-5 RATING-13R-1100 HW (DRY), 31L/R-1200 STD (WET). This rating is a function of the A-GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Military Service.

FOREIGN CABLE

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>US EQUIVALENT</u>
44B-3H	Rotary Hydraulic (Water Brake)	
CHAG	Chain	E-5

UNI-DIRECTIONAL BARRIER

<u>TYPE</u>	<u>DESCRIPTION</u>
MA-1A	Web barrier between stanchions attached to a chain energy absorber.
BAK-15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK-15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

OTHER

<u>TYPE</u>	<u>DESCRIPTION</u>
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

23 MILITARY SERVICE

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

24 JET AIRCRAFT STARTING UNITS (JASU)

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non-availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35-1-7.)

ELECTRICAL STARTING UNITS:

A/M32A-86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC-1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD-3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD-3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw

MD-4 AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, "WYE" neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, "DELTA" 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire

AIR STARTING UNITS

AM32-95 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
 AM32A-95 150 +/- 5 lb/min @ 49 +/- 2 psia (35 +/- 2 psig)
 LASS 150 +/- 5 lb/min @ 49 +/- 2 psia
 MA-1A 82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
 MC-1 15 cfm, 3500 psia
 MC-1A 15 cfm, 3500 psia
 MC-2A 15 cfm, 200 psia
 MC-11 8,000 cu in cap, 4000 psig, 15 cfm

COMBINED AIR AND ELECTRICAL STARTING UNITS:

AGPU AC: 115/200v, 400 cycle, 3 phase, 30 kw gen
 DC: 28v, 700 amp
 AIR: 60 lb/min @ 40 psig @ sea level
 AM32A-60* AIR: 120 +/- 4 lb/min (1644 +/- 55 cfm) at 49 +/- 2 psia
 AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva
 DC: 28v, 500 amp, 15 kw
 AM32A-60A AIR: 150 +/- 5 lb/min (2055 +/- 68 cfm) at 51 +/- 2 psia
 AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire
 DC: 28v, 200 amp, 5.6 kw
 AM32A-60B* AIR: 130 lb/min, 50 psia
 AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire
 DC: 28v, 200 amp, 5.6 kw

*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.

USN JASU

ELECTRICAL STARTING UNITS:

NC-8A/A1 DC: 500 amp constant, 750 amp intermittent, 28v;
 AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
 NC-10A/A1/B/C DC: 750 amp constant, 1000 amp intermittent, 28v;
 AC: 90 kva, 115/200v, 3 phase, 400 Hz.

AIR STARTING UNITS:

GTC-85/GTE-85 120 lbs/min @ 45 psi.
 MSU-200NAV/A/U47A-5 204 lbs/min @ 56 psia.
 WELLS AIR START SYSTEM 180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.

COMBINED AIR AND ELECTRICAL STARTING UNITS:

NCPP-105/RCPT 180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.

JASU (ARMY)

59B2-1B 28v, 7.5 kw, 280 amp.

OTHER JASU

ELECTRICAL STARTING UNITS (DND):

CE12 AC 115/200v, 140 kva, 400 Hz, 3 phase
 CE13 AC 115/200v, 60 kva, 400 Hz, 3 phase
 CE14 AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
 CE15 DC 22-35v, 500 amp continuous 1100 amp intermittent
 CE16 DC 22-35v, 500 amp continuous 1100 amp intermittent soft start

AIR STARTING UNITS (DND):

CA2 ASA 45.5 psig, 116.4 lb/min

COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)

CEA1 AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp
 AIR 112.5 lb/min, 47 psig

ELECTRICAL STARTING UNITS (OTHER)

C-26 28v 45kw 115-200v 15kw 380-800 Hz 1 phase 2 wire
 C-26-B, C-26-C 28v 45kw: Split Bus: 115-200v 15kw 380-800 Hz 1 phase 2 wire
 E3 DC 28v/10kw

AIR STARTING UNITS (OTHER):

A4 40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
 MA-1 150 Air HP, 115 lb/min 50 psia
 MA-2 250 Air HP, 150 lb/min 75 psia

CARTRIDGE:

MXU-4A USAF

14 FUEL—MILITARY

Fuel available through US Military Base supply, DESC Into-Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into-Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into-Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into-Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into-Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at www.desc.dla.mil/Static/ProductsAndServices.asp; click on the Commercial Airports button.

See legend item 14 for fuel code and description.

26 SUPPORTING FLUIDS AND SYSTEMS—MILITARY

CODE

ADI	Anti-Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water-Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De-Ice	Anti-icing/De-icing/Defrosting Fluid (MIL-A-8243).

OXYGEN:

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
OXRB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:

LPNIT	Low pressure nitrogen servicing.
HPNIT	High pressure nitrogen servicing.
LHNIT	Low and high pressure nitrogen servicing.

27 OIL—MILITARY

US AVIATION OILS (MIL SPECS):

CODE	GRADE, TYPE
O-113	1065, Reciprocating Engine Oil (MIL-L-6082)
O-117	1100, Reciprocating Engine Oil (MIL-L-6082)
O-117+	1100, O-117 plus cyclohexanone (MIL-L-6082)
O-123	1065, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type III)
O-128	1100, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type II)
O-132	1005, Jet Engine Oil (MIL-L-6081)
O-133	1010, Jet Engine Oil (MIL-L-6081)
O-147	None, MIL-L-6085A Lubricating Oil, Instrument, Synthetic
O-148	None, MIL-L-7808 (Synthetic Base) Turbine Engine Oil
O-149	None, Aircraft Turbine Engine Synthetic, 7.5c St
O-155	None, MIL-L-6086C, Aircraft, Medium Grade
O-156	None, MIL-L-23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP	Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)

28 TRANSIENT ALERT (TRAN ALERT)—MILITARY

Tran Alert service is considered to include all services required for normal aircraft turn-around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute repack, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN-AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

29 AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note "See Special Notices" shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

30 MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non-operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non-US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11-204, AR 95-27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on board are designated Code 6 or higher as explained in AFJMAN 11-213, AR 95-11, OPNAVINST 3722-8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

31 WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS-3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS—Automated Weather Observing System

AWOS-A—reports altimeter setting (all other information is advisory only).

AWOS-1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS-2—reports the same as AWOS-1 plus visibility.

AWOS-3—reports the same as AWOS-1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION

LAWSR—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.

LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers.

SAWSR—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.

SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.

32 COMMUNICATIONS

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading "COMMUNICATIONS." When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1-800-WX-BRIEF (1-800-992-7433). When the FSS is located on the field it will be indicated as "on arpt". Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation.

(See AIM, Para 4-1-9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90-42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies—Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

- a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
- b. 122.2 is assigned as a common enroute frequency.
- c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
- d. 122.1 is the primary receive-only frequency at VOR's.
- e. Some FSS's are assigned 50 kHz frequencies in the 122-126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remotized facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter "T" or "R", indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

TERMINAL SERVICES

SFA—Single Frequency Approach.

CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.

ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.

D-ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.

AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.

UNICOM—A non-government air/ground radio communications facility which may provide airport information.

PTD—Pilot to Dispatcher.

APP CON—Approach Control. The symbol ® indicates radar approach control.

TOWER—Control tower.

GCA—Ground Control Approach System.

GND CON—Ground Control.

GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four "key clicks" on the

VHF radio to contact the appropriate ATC facility or six “key clicks” to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol **(R)** indicates radar departure control.

CLNC DEL—Clearance Delivery.

PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.

Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.

COMD POST—Command Post followed by the operator call sign in parenthesis.

PMSV—Pilot-to-Metro Service call sign, frequency and hours of operation, when full service is other than continuous.

PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as “Wx obsn svc 1900-0000Z+” or “other times” may be used when no specific time is given. PMSV facilities manned by forecasters are considered “Full Service”. PMSV facilities manned by weather observers are listed as “Limited Service”.

OPS—Operations followed by the operator call sign in parenthesis.

CON

RANGE

FLT FLW—Flight Following

MEDIVAC

NOTE: Communication frequencies followed by the letter “X” indicate frequency available on request.

(33) AIRSPACE

Information concerning Class B, C, and part-time D and E surface area airspace shall be published with effective times.

Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.

CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.

CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.

TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.

Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.

When part-time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:

AIRSPACE: CLASS C svc “times” ctc **APP CON** other times CLASS E:

or

AIRSPACE: CLASS D svc “times” other times CLASS E.

When a part-time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700’ or 1200’ AGL. This will be formatted as:

AIRSPACE: CLASS C svc “times” ctc **APP CON** other times CLASS G, with CLASS E 700’ (or 1200’) AGL & abv:

or

AIRSPACE: CLASS D svc “times” other times CLASS G with CLASS E 700’ (or 1200’) AGL & abv:

or

AIRSPACE: CLASS E svc “times” other times CLASS G with CLASS E 700’ (or 1200’) AGL & abv.

NOTE: AIRSPACE SVC “TIMES” INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part-time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part-time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.

NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.

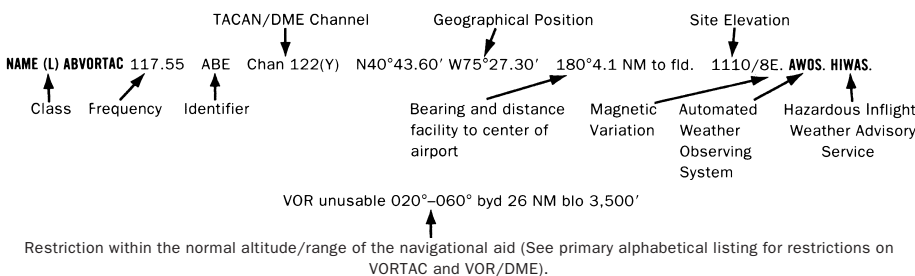
Class E 700’ AGL (shown as magenta vignette on sectional charts) and 1200’ AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700’/1200’ AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)

34 RADIO AIDS TO NAVIGATION

The Airport/Facility Directory lists, by facility name, all Radio Aids to Navigation that appear on National Aeronautical Navigation Services Visual or IFR Aeronautical Charts and those upon which the FAA has approved an Instrument Approach Procedure, with exception of selected TACANs. Military TACAN information will be published for Military facilities contained in this publication. All VOR, VORTAC, TACAN, ILS and MLS equipment in the National Airspace System has an automatic monitoring and shutdown feature in the event of malfunction. Unmonitored, as used in this publication, for any navigational aid, means that monitoring personnel cannot observe the malfunction or shutdown signal. The NAVAID NOTAM file identifier will be shown as "NOTAM FILE IAD" and will be listed on the Radio Aids to Navigation line. When two or more NAVAIDS are listed and the NOTAM file identifier is different from that shown on the Radio Aids to Navigation line, it will be shown with the NAVAID listing. NOTAM file identifiers for ILSs and its components (e.g., NDB (LOM) are the same as the associated airports and are not repeated. Automated Surface Observing System (ASOS), Automated Weather Observing System (AWOS), and Hazardous Inflight Weather Advisory Service (HIWAS) will be shown when this service is broadcast over selected NAVAIDS.

NAVAID information is tabulated as indicated in the following sample:



Note: Those DME channel numbers with a (Y) suffix require TACAN to be placed in the "Y" mode to receive distance information.

HIWAS—Hazardous Inflight Weather Advisory Service is a continuous broadcast of inflight weather advisories including summarized SIGMETs, convective SIGMETs, AIRMETs and urgent PIREPs. HIWAS is presently broadcast over selected VOR's throughout the U.S.

ASR/PAR—Indicates that Surveillance (ASR) or Precision (PAR) radar instrument approach minimums are published in the U.S. Terminal Procedures. Only part-time hours of operation will be shown.

RADIO CLASS DESIGNATIONS

VOR/DME/TACAN Standard Service Volume (SSV) Classifications

SSV Class	Altitudes	Distance (NM)
(T) Terminal	1000' to 12,000'	25
(L) Low Altitude	1000' to 18,000'	40
(H) High Altitude	1000' to 14,500'	40
	14,500' to 18,000'	100
	18,000' to 45,000'	130
	45,000' to 60,000'	100

NOTE: Additionally, (H) facilities provide (L) and (T) service volume and (L) facilities provide (T) service. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility.

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The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB _____	Automatic Weather Broadcast.
DF _____	Direction Finding Service.
DME _____	UHF standard (TACAN compatible) distance measuring equipment.
DME(Y) _____	UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the "Y" mode to receive DME.
GS _____	Glide slope.
H _____	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
HH _____	Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
H-SAB _____	Non-directional radio beacons providing automatic transcribed weather service.
ILS _____	Instrument Landing System (voice, where available, on localizer channel).
IM _____	Inner marker.
ISMLS _____	Interim Standard Microwave Landing System.
LDA _____	Localizer Directional Aid.
LMM _____	Compass locator station when installed at middle marker site (15 NM at all altitudes).
LOM _____	Compass locator station when installed at outer marker site (15 NM at all altitudes).
MH _____	Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
MLS _____	Microwave Landing System.
MM _____	Middle marker.
OM _____	Outer marker.
S _____	Simultaneous range homing signal and/or voice.
SABH _____	Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
SDF _____	Simplified Direction Facility.
TACAN _____	UHF navigational facility-omnidirectional course and distance information.
VOR _____	VHF navigational facility-omnidirectional course only.
VOR/DME _____	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC _____	Collocated VOR and TACAN navigational facilities.
W _____	Without voice on radio facility frequency.
Z _____	VHF station location marker at a LF radio facility.

ILS FACILITY PERFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

ILS/DME 108.5 I-ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

ILS Facility Performance
Classification Code

FREQUENCY PAIRING PLAN AND MLS CHANNELING

MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL
500	108.10	18X	568	109.45	31Y	636	114.15	88Y
502	108.30	20X	570	109.55	32Y	638	114.25	89Y
504	108.50	22X	572	109.65	33Y	640	114.35	90Y
506	108.70	24X	574	109.75	34Y	642	114.45	91Y
508	108.90	26X	576	109.85	35Y	644	114.55	92Y
510	109.10	28X	578	109.95	36Y	646	114.65	93Y
512	109.30	30X	580	110.05	37Y	648	114.75	94Y
514	109.50	32X	582	110.15	38Y	650	114.85	95Y
516	109.70	34X	584	110.25	39Y	652	114.95	96Y
518	109.90	36X	586	110.35	40Y	654	115.05	97Y
520	110.10	38X	588	110.45	41Y	656	115.15	98Y
522	110.30	40X	590	110.55	42Y	658	115.25	99Y
524	110.50	42X	592	110.65	43Y	660	115.35	100Y
526	110.70	44X	594	110.75	44Y	662	115.45	101Y
528	110.90	46X	596	110.85	45Y	664	115.55	102Y
530	111.10	48X	598	110.95	46Y	666	115.65	103Y
532	111.30	50X	600	111.05	47Y	668	115.75	104Y
534	111.50	52X	602	111.15	48Y	670	115.85	105Y
536	111.70	54X	604	111.25	49Y	672	115.95	106Y
538	111.90	56X	606	111.35	50Y	674	116.05	107Y
540	108.05	17Y	608	111.45	51Y	676	116.15	108Y
542	108.15	18Y	610	111.55	52Y	678	116.25	109Y
544	108.25	19Y	612	111.65	53Y	680	116.35	110Y
546	108.35	20Y	614	111.75	54Y	682	116.45	111Y
548	108.45	21Y	616	111.85	55Y	684	116.55	112Y
550	108.55	22Y	618	111.95	56Y	686	116.65	113Y
552	108.65	23Y	620	113.35	80Y	688	116.75	114Y
554	108.75	24Y	622	113.45	81Y	690	116.85	115Y
556	108.85	25Y	624	113.55	82Y	692	116.95	116Y
558	108.95	26Y	626	113.65	83Y	694	117.05	117Y
560	109.05	27Y	628	113.75	84Y	696	117.15	118Y
562	109.15	28Y	630	113.85	85Y	698	117.25	119Y
564	109.25	29Y	632	113.95	86Y			
566	109.35	30Y	634	114.05	87Y			

FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channels.

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45	548	27X	109.00	-
12Y	135.55	-	22X	108.50	504	27Y	109.05	560
17X	108.00	-	22Y	108.55	550	28X	109.10	510
17Y	108.05	540	23X	108.60	-	28Y	109.15	562
18X	108.10	500	23Y	108.65	552	29X	109.20	-
18Y	108.15	542	24X	108.70	506	29Y	109.25	564
19X	108.20	-	24Y	108.75	554	30X	109.30	512

(35) COMM/NAV/WEATHER REMARKS:
These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

AIKEN MUNI (AIK) 6 N UTC-5(-4DT) N33°38.96' W81°41.10'**CHARLOTTE**

528 B S2 FUEL 100LL, JET A NOTAM FILE AND

H-9B, 126, L-241

RWY 07-25: H5500X100 (ASPH-AFSC) S-22, D-65, 2S-82 MIRL 0.4% up SW

IAP

RWY 07: PAPI(P2L)—GA 3.0° TCH 22'.

RWY 25: ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 26'.

RWY 01-19: H3800X75 (ASPH-AFSC) S-22 MIRL 0.9% up S

RWY 01: Tree. RWY 19: Tree.

AIRPORT REMARKS: Attended 1100-2300Z†. ACTIVATE MIRL Rwy 07-25 and ODALS Rwy 25—CTAF.**WEATHER DATA SOURCES:** AWOS-3 118.025 (803) 643-8664.**COMMUNICATIONS:** CTAF/UNICOM 122.8

RCO 122.45 (ANDERSON RADIO)

Ⓡ AUGUSTA APP/DEP CON 119.15 (1145-0400Z‡)

Ⓡ COLUMBIA APP/DEP CON 124.15 (0400-1145Z‡)

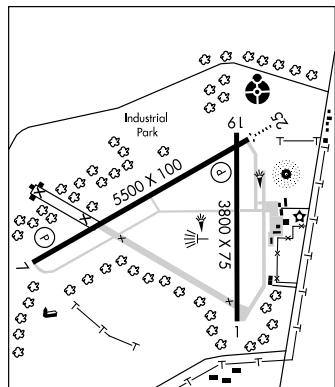
RADIO AIDS TO NAVIGATION: NOTAM FILE AND

COLLIERS (H) VORTAC 113.9 IRQ Chan 86 N33°42.44'

W82°09.72' 102° 24.1 NM to fld. 428/04W.

NDB (MHW) 347 AIK N33°39.11' W81°40.62' at fld.

Unmonitored 2300-1300Z‡.

**ALCOT** N34°10.44' W79°51.15' NOTAM FILE FLO.**CHARLOTTE**

NDB (LOM) 335 FL 089° 6.4 NM to Florence Rgnl.

ALLENDALE CO (88J) 2 SE UTC-5(-4DT) N32°59.71' W81°16.21'**CHARLOTTE**

161 B FUEL 100LL, JET A NOTAM FILE AND

H-9B, 126, L-241

RWY 17-35: H5005X75 (ASPH) S-26, D-34 MIRL

IAP

RWY 17: PAPI(P2L)—GA 3.0° TCH 26'. Tree. RWY 35: PAPI(P2L)—GA 3.0° TCH 26'.

AIRPORT REMARKS: Attended 1300-2200Z‡. For fuel or svc after hrs call 803-584-2060. 5' drainage structure located 1220' from Rwy 17 thld and 75' left. ACTIVATE MIRL Rwy 17-35 and PAPI Rwy 17 and Rwy 35—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8

RCO 122.1R 116.7T (ANDERSON RADIO)

Ⓡ JAX CENTER APP/DEP CON 132.5

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

VANCE (L) VORTAC 110.4 VAN Chan 41 N33°28.49' W80°26.92' 241° 50.4 NM to fld. 140/06W.

(L) VOR 116.7 ALD N33°00.75' W81°17.53' 134° 1.5 NM to fld.

VOR unusable:

360°-035° blo 3000'

217°-314° blo 3000'

036°-134° blo 6000'

315°-325° byd 10 NM blo 3000'

135°-145° byd 10 NM blo 6000'

326°-341° blo 3000'

146°-216° blo 6000'

342°-359°

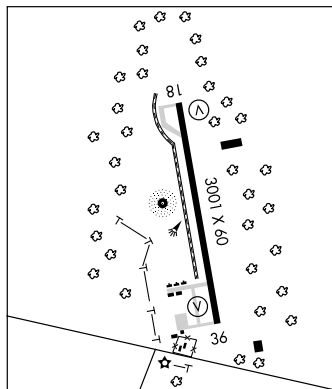
ANDERSON RGNL (AND) 3 SW UTC-5(-4DT) N34°29.68' W82°42.56' **ATLANTA**
 782 B S4 FUEL 100LL JET A OX 4 Class I, ARFF Index A NOTAM FILE AND **H-9B, 12G, L-25C**
RWY 05-23: H6002X149 (ASPH) S-50.5, D-67.5, 2S-85 HIRL **IAP**
RWY 05: MALSR. PAPI(P4L). Trees. **RWY 23:** SAVASI(S2L)—GA 3.0°TCH 30'. Trees.
RWY 17-35: H4996X149 (ASPH) S-16.5, D-23 0.9% up N
RWY 17: Trees. **RWY 35:** Trees.
AIRPORT REMARKS: Attended 1230-0030Z†. For svc call 864-260-4163. Arpt unattended Thanksgiving, Christmas and New Years Day. After hours, 100LL fuel avbl by self-service. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except 24 hr PPR call arpt manager 864-260-4163. Rwy 17-35 not avbl for air carrier use. Rwy 17-35 widespread cracks. Wildlife on and invof arpt, more active at dusk and dawn. Profile of Rwy 05-23 restricts visibility from thld Rwy 05 to thld Rwy 23. Twy lgts from apron to Rwy 05 only. ACTIVATE HIRL Rwy 05-23, MALSR Rwy 05—CTAF.
WEATHER DATA SOURCES: ASOS 120.675 (864) 226-9522.
COMMUNICATIONS: CTAF 123.6 **UNICOM** 122.95
RCO 123.6 122.2 (ANDERSON RADIO)
® GREER APP/DEP CON 118.8 (1100-0445Z†)
ATLANTA CENTER APP/DEP CON 127.5 (0445-1100Z†)
RADIO AIDS TO NAVIGATION: NOTAM FILE AND. VHF/DF ctc FSS.
ELECTRIC CITY (L) VORTACW 108.6 ELW Chan 23 N34°25.15' W82°47.08' 040° 5.9 NM to fld. 736/00E.
ILS 111.9 I-AND Rwy 05. Class IB.
COMM/NAV/WEATHER REMARKS: Ctc Anderson Radio for airport advisory service on 123.6.

HELIPAD H1: H50X50 (CONC) S-30
HELIPAD H2: H50X50 (CONC) S-30
HELIPORT REMARKS: Helicopters with skids are restricted to land on helipads or grassed areas. ACTIVATE perimeter lgts H1 and H2—CTAF.

ANDREWS N33°27.09' W079°31.64' NOTAM FILE AND. **CHARLOTTE**
NDB (MHW) 255 PHH at Robert F. Swinnie. Unusable byd 20 NM. **L-24I**

ANDREWS

ROBERT F SWINNIE (PHH) 2 E UTC-5(-4DT) N33°27.10' W79°31.57' **CHARLOTTE**
 26 B NOTAM FILE AND **L-24I**
RWY 18-36: H3001X60 (ASPH) S-11, D-22 MIRL 0.3% up S **IAP**
RWY 18: VASI(V2L)—GA 3.0° TCH 38'. Tree.
RWY 36: VASI(V2L)—GA 3.0° TCH 34'.
AIRPORT REMARKS: Unattended. Rwy 18-36 MIRL OTS indef.
COMMUNICATIONS: CTAF 122.9
® MYRTLE BEACH APP/DEP CON 127.4 (1100-0400Z†)
JAX CENTER APP/DEP CON 128.7 (0400-1100Z†)
RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.
CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66' W80°02.27' 043° 42.2 NM to fld. 39/05W. **HIWAS.**
ANDREWS NDB (MHW) 255 PHH N33°27.09' W079°31.64' at fld. Unusable byd 20 NM. NOTAM FILE AND.



ASHLY N32°58.58' W80°05.85' NOTAM FILE CHS. **CHARLOTTE**
NDB (HW/LOM) 329 CH 153° 5.5 NM to Charleston AFB/Intl. **H-9C, 12G, L-23A, 24I**

BAMBERG CO (99N) 5 W UTC-5(-4DT) N33°18.27' W81°06.51'

CHARLOTTE
L-241

231 B NOTAM FILE AND

RWY 05-23: H3603X60 (ASPH) S-30 D-60 MIRL

RWY 05: PAPI(P2L)—GA 3.0° TCH 40'.

RWY 23: PAPI(P2L)—GA 3.0° TCH 40'.

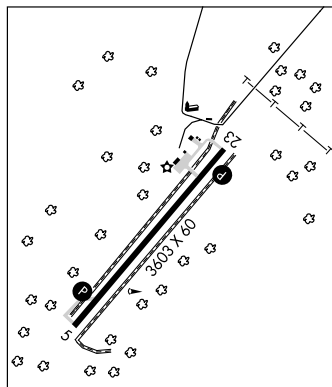
AIRPORT REMARKS: Unattended. MIRL Rwy 05-23 opr dusk-0300Z±, after 0300Z± ACTIVATE MIRL and PAPI Rwy 05-23—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE OGB.

EDISTO (T) VORW/DME 111.4 EDS Chan 51 N33°27.34'

W80°51.51' 239° 15.5 NM to fld. 189/05W.



BARNWELL RGNL (BNL) 1 NW UTC-5(-4DT) N33°15.48' W81°23.28'

CHARLOTTE
H-9B, 126, L-241
IAP

246 B S4 FUEL 100LL, JET A NOTAM FILE AND

RWY 05-23: H4835X70 (ASPH) S-12

RWY 23: Rgt tfc.

RWY 17-35: H5119X100 (ASPH) S-20, D-60 MIRL

RWY 17: ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 52'. Tree. Rgt tfc.

RWY 35: PAPI(P2L)—GA 3.0° TCH 45'. Tree.

AIRPORT REMARKS: Attended 1400-2200Z±. Self svc fuel and 93 octane avbl with credit card. Rwy 05-23 pavement cracked with grass growing through producing loose stones. ACTIVATE ODALS Rwy 17, MIRL Rwy 17-35—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.775 (803) 259-4536.

COMMUNICATIONS: CTAF/UNICOM 122.8

JACKSONVILLE CENTER APP/DEP CON 132.5

GCO 125.725 (JACKSONVILLE CLNC)

RADIO AIDS TO NAVIGATION: NOTAM FILE CAE.

COLUMBIA (H) VORTAC 114.7 CAE Chan 94 N33°51.44' W81°03.24' 207° 39.6 NM to fld. 400/02W.

BEAUFORT CO (ARW) 3 SE UTC-5(-4DT) N32°24.73' W80°38.06'

CHARLOTTE
L-24H
IAP

9 B FUEL 100LL, JET A TPA-1009(1000) NOTAM FILE AND

RWY 07-25: H3434X75 (ASPH) S-12.5 MIRL

RWY 07: PAPI(P2L)—GA 3.45° TCH 29'. Rgt tfc.

RWY 25: REIL. PAPI(P2L)—GA 3.0° TCH 21'.

AIRPORT REMARKS: Attended 1200-0000Z±. Self svc fuel avbl 24 hrs.

Parachute Jumping. Deer, seagulls and geese on and invof arpt.

Rwy 25 has 5' bushes 100' from thld. P-lines 100' located

2400' SW AER 07. Rwy 07 PAPI OTS indef. MIRL Rwy 07-25

preset low ints, to increase ints—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.675 (843) 524-1000.

COMMUNICATIONS: CTAF/UNICOM 122.7

® BEAUFORT APP/DEP CON 118.45 Mon-Thur (1200-0400Z±), Fri (1200-2300Z±), Clsd holidays.

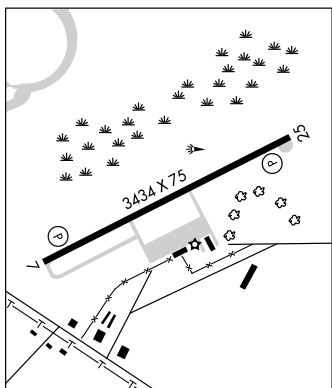
JACKSONVILLE CENTER APP/DEP CON 120.85 Mon-Thur (0400-1200Z±), Fri-Sun (2300-1200Z±). CLNC DEL 121.725

RADIO AIDS TO NAVIGATION: NOTAM FILE SAV.

SAVANNAH (H) VORTAC 115.95 SAV Chan 106(Y) N32°08.78'

W81°11.95' 067° 32.8 NM to fld. 9/6W. HIWAS.

ASR (Mon-Fri 1100-0500Z±, Sat 1300-2100Z±, Sun 2000-0400Z±)



BEAUFORT MCAS (MERRITT FLD) (NBC)(KNBC) MC 3 NW UTC-5(-4DT)**CHARLOTTE**

N32°28.83' W80°43.15'

H-9B, 12G, L-24J

37 B TPA—See Remarks Class I, ARFF Index Ltd. NOTAM FILE AND Not insp.

DIAP, AD**RWY 05-23:** H1220X200 (PEM) PCN 59 R/C/W/T HIRL**RWY 05:** SALSF. PAPI(P4L)—GA 3.0° TCH 49'.**RWY 23:** ALSF1. PAPI(P4L)—GA 3.0° TCH 53'.**RWY 14-32:** H7999X200 (PEM) PCN 64 R/D/W/T HIRL**RWY 14:** PAPI (P4R)—GA 3.0° TCH 40'.**RWY 32:** PAPI (P4R)—GA 3.0° TCH 40'.**RWY 10-28:** H6425X150 (ASPH)**RWY 18-36:** H3941X150 (ASPH)**ARRESTING GEAR/SYSTEM****RWY 05** HOOK E28(B) (2050')HOOK E28(B) (1900') **RWY 23****RWY 14** HOOK E28(B) (1250')HOOK E28(B) (1248') **RWY 32****MILITARY SERVICE: A-GEAR** E-28 on all rwys and in raised position except on ldg rwy. **FUEL J5** **TRAN ALERT** Tran svc avbl 1200-2300Z± Mon-Fri only CLOSED natl hol. (See RSTD for additional tran acft info). Tran acft expect truck refuel. Tran acft maint unavbl. Tran aviation ordnance svc avbl. Lavatory svc unavbl. Jasu, fluid, and oil unavbl.**MILITARY REMARKS:** Opr Mon-Thu 1200-0400Z±, Fri 1200-2300Z±, CLOSED holidays. Other times open by NOTAM for special ops only. **RSTD** Rwy 10-28 and Rwy 18-36 CLOSED until further notice. Due to limited tran svc avbl.Prior ntc all inbound tran acft to include AMC, JOSAC, alternate afld and diverts. Prior ntc approval good for +/- 1 hr of coordinated time. Ctc Base OPS DSN 335-7301/2/3/ C843-228-7301/2/3. Fax DSN 335-7874, C843-228-7874. Heavy acft rstd from use of VIP line. **CAUTION** Severe bird activity Oct-Apr. Wildlife on rwy during periods of darkness. Check ATIS for bird aircraft strike hazard updates. **TFC PAT** TPA—Overhead 1500(1463), conventional 800(763), helicopter call entering Class D Airspace blo 800(763). Multiple apch Rwy 32 not authorized. Reduced rwy separation standard in effect USN/USMC acft. Touch and go duty rwy only. **CSTMS/AG/IMG** Ltd CSTMS/AG avbl mil acft only, 24 hr prior notice rqr. Ctc Customs DSN 335-6161, C843-228-6161. **MISC** All acft with passenger, cargo, VIP etc PTD 20 min prior to landing. ALCE team require for all AMC mission.**COMMUNICATIONS: SFA** ATIS 256.15 (Mon-Thu 1200-0400Z±, Fri 1200-2300Z±, clsd Sat-Sun and holidays.)**® APP/DEP CON** 123.7 328.425 (3000' and blo) 118.45 292.125 (abv 3000') (Mon-Thu 1200-0400Z±, Fri 1200-2300Z±), other times by NOTAM.**® JACKSONVILLE CENTER APP/DEP CON** 120.85 322.5**TOWER** 119.05 342.875 363.15(Mon-Thu 1200-0400Z±, Fri 1200-2300Z±, clsd Sat-Sun and holidays.) other times by NOTAM.**GND CON/CLNC DEL** 128.15 348.625 (Mon-Thu 1200-0400Z±, Fri 1200-2300Z±, clsd Sat-Sun and holidays)**PMSV METRO** 264.5 (Mon-Thu 1200-0400Z±, Fri 1200-2300Z±, clsd holidays) **BASE OPS** 281.8**AIRSPACE: CLASS D** svc Mon-Thu 1200-0400Z±, Fri 1200-2300Z±, clsd holidays, other times Class E other times by NOTAM.**RADIO AIDS TO NAVIGATION:** NOTAM FILE AND.**(L) TACAN** Chan 42 NBC (110.5) N32°28.74' W80°43.04' at fld. 49/5W. TACAN unusable 300°-010° byd 30 NM blo 5,000'. Unavbl Mon-Fri 0400-1200Z± and all day weekends except when afld is open by NOTAM.**ASR/PAR****COMM/NAV/WEATHER REMARKS:** Radar see Terminal FLIP for Radar Minima.**BENNETTSVILLE** N34°37.21' W79°43.99' NOTAM FILE AND.**CHARLOTTE****NDB (MHW)** 230 BES at Marlboro Co. Jetport-H.E. Avent Fld.**L-24J, 25E, 35A, 36E**

BENNETTSVILLE

MARLBORO CO JETPORT—H.E. AVENT FLD (BBP) 3 W UTC−5(−4DT) N34°37.30' W79°44.06' **CHARLOTTE**

147 B FUEL 100, JET A NOTAM FILE AND

RWY 07–25: H5003X74 (ASPH) S–28, D–43, 2D–70 MIRL

RWY 07: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

RWY 25: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree.

AIRPORT REMARKS: Attended Mon–Sat 1300–2200Z†, Sun

1800–2200Z†. For svc Sun call FBO 843–454–2303. For fuel after hrs call 843–862–4359. For FBO call 843–479–4797.

WEATHER DATA SOURCES: AWOS–3 123.825 (843) 479–5817.

COMMUNICATIONS: CTAF/UNICOM 122.8

FLORENCE APP/DEP CON 118.6 (1130–0300Z†)

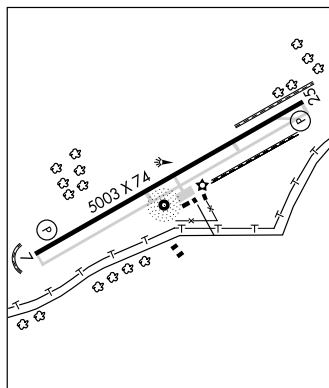
JAX CENTER APP/DEP CON 133.45 (0300–1130Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

FLORENCE (H) VORTAC 115.2 FLO Chan 99 N34°13.98'

W79°39.43' 354° 23.6 NM to fld. 110/03W. HIWAS.

BENNETTSVILLE NDB (MHW) 230 BES N34°37.21' W79°43.99'
at fld. NOTAM FILE AND.



BERKELEY CO (See MONCKS CORNER)

BISHOPVILLE

LEE CO—BUTTERS FLD (52J) 2 N UTC−5(−4DT) N34°14.67' W80°14.16'

211 NOTAM FILE AND

RWY 06–24: H3200X60 (ASPH)

AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

CHESTERFIELD (L) VOR/DME 108.2 CTF Chan 19 N34°39.03' W80°16.50' 178° 24.4 NM to fld. 560/03W.

BRANHAMS (See DARLINGTON)

CALAB N33°53.12' W78°37.80' NOTAM FILE CRE.

NDB (LOM) 267 CR 233° 6.4 NM to Grand Strand.

CHARLOTTE

CALHOUN FALLS

HESTER MEML (ØA2) 1 E UTC−5(−4DT) N34°05.43' W82°34.91'

517 NOTAM FILE AND

RWY 10–28: H3917X60 (ASPH) S–12.5 LIRL

RWY 10: Tree. RWY 28: Tree.

AIRPORT REMARKS: Unattended. Remote controlled acft invof arpt. Rwy 10–28 and apron cracking badly. Grass coming up thru cracks.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

ELECTRIC CITY (L) VORTACW 108.6 ELW Chan 23 N34°25.15' W82°47.08' 151° 22.5 NM to fld. 736/00E.

ATLANTA

L–241

CAMDEN**WOODWARD FLD** (CDN) 3 NE UTC-5(-4DT) N34°17.02' W80°33.89'

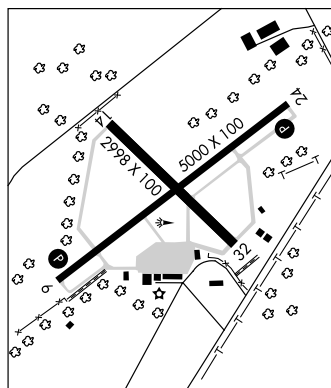
302 B S4 FUEL 100LL, JET A OX 4 NOTAM FILE AND

RWY 06-24: H5000X100 (ASPH) S-30, D-55, 2D-90 MIRL**RWY 06:** REIL. PAPI(P2L)—GA 3.0° TCH 31'. Tree.**RWY 24:** REIL. PAPI(P2L)—GA 3.0° TCH 28'. Tree.**RWY 14-32:** H2998X100 (ASPH) S-30, D-55, 2D-90**RWY 14:** Tree.**RWY 32:** Tree.

AIRPORT REMARKS: Attended 1300-2300Z†. For after hrs svc Sat-Sun, call 803-260-1128 or 803-446-0214. Aerobatic box overhead arpt up to 4000' during dalgt hrs. Twy clsd between AER 06 and AER 14. MIRL Rwy 06-24 preset low ints; to increase ints and ACTIVATE REIL Rwy 06 and Rwy 24, PAPI Rwy 06 and Rwy 24-CTAF.

WEATHER DATA SOURCES: AWOS-3 119.975 (803) 424-1979.**COMMUNICATIONS:** CTAF/UNICOM 123.0® **SHAW APP/DEP CON** 125.4 (1200-0430Z†)**JAX CENTER APP/DEP CON** 124.7 (0430-1200Z†)**RADIO AIDS TO NAVIGATION:** NOTAM FILE AND.**CHESTERFIELD (L) VOR/DME** 108.2 CTF Chan 19 N34°39.03'

W80°16.50' 216° 26.3 NM to fld. 560/03W.

CHARLOTTE**H-9B, 12G, L-24J, 25D****IAP**

CHARLESTON

CHARLESTON AFB/INTL (CHS)(KCHS) CIV/MIL 9 NW UTC-5(-4DT) N32°53.92' W80°02.43' CHARLOTTE

46 B S4 FUEL 100, JET A1+ OX 1 TPA—See Remarks LRA H-9C, 126, L-241

Class I, ARFF Index C NOTAM FILE CHS IAP, AD

RWY 15-33: H9001X200 (CONC-GRVD) S-125, D-275, 2D-350, 2D/2D2-775 PCN 51 R/B/W/T

HIRL CL

RWY 15: ALSF2. TDZL. PAPI(P4L)—GA 3.0°.

RWY 33: MALSR. PAPI(P4L)—GA 3.0° TCH 46'.

RWY 03-21: H7000X150 (CONC-GRVD) S-125, D-275, 2D-350, 2D/2D2-775 PCN 66 R/B/W/T

HIRL 0.3% up NE

RWY 03: REIL. PAPI(P4L)—GA 3.0°. TCH 50'.

RWY 21: REIL. PAPI(P4L)—GA 3.0°. TCH 50'.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 03	15-33	5543
RWY 15	03-21	5700
RWY 33	03-21	2900

ARRESTING GEAR/SYSTEM

RWY 15 ← BAK-12A(B) (1250')

BAK-12A(B) (1460') → RWY 33

MILITARY SERVICE: KCHS mil provides no security and no acft svcs at FBO's and commercial terminal. Military acft for FBO parking/svc rqr PPR 843-746-7600. **LGT:** Afld rotating bcn not visible from northwest. **A-GEAR** Rwy 15-33 BAK 12A rqr 1hr prior notice. **JASU** 8(MD-3M) 2(MA-1A) (M32A-60) (M32A-60A) **FUEL** J8 (FBO's, C843-746-7600; C843-414-9200). (NC-100LL, A1+) All acft requiring fuel, please have in your possession the white DD form 1896 fuel card, US government air card or your base billing information. **FLUID** SOAP—Routine SOAP samples not avbl; SP PRESAIR LHOX LOX **OIL** Non-detergent oil not avbl for piston acft. O-128-133-148(Mil).

AIRPORT REMARKS: Attended continuously. Rwy 03-21 CLOSED monthly 2nd Thu 1330-2200Z. Rwy 15-33 CLOSED last Thu of each month 1330-2200Z. Intensive heavy military jets and other miscellaneous acft executing numerous cargo and personnel drops, high speed low-level formation flights and miscellaneous air-to-ground ops. No student solo touch and go ldg allowed. PPR for parking of general aviation acft on terminal ramp ctc 843-767-1100. Parking on terminal apron restricted to commercial air carrier and acft for customs clearance by prior arrangement only. Flight Notification Service (ADCUS) avbl.

MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Remark. **RSTD** Transient-acft for military ramp Follow-Me rgr. All acft must ctc Palmetto OPS prior to entering military ramp for parking assignment. Rwy condition reading not avbl. Intersection twy on mil ramp in front of spot 29-34 clsd to through tfc. All inbound VIP Code 7 or higher, passenger, cargo acft must ctc Palmetto OPS no later than 30 min prior to ldg. AMC acft ops rstd during Bird Watch condition moderate (tkf or ldg permission only when dep/arr route avoid identification bird activity, no local IFR/VFR tfc pattern acft) and severe (tkf and ldg prohibited without OG/CC approval), ctc Palmetto OPS for current Bird Watch condition. Non-AMC aircrews requesting Remain Overnight svc ctc Comd Post (Palmetto OPS)DSN 673-8400, C843-963-8400 prior arrival. Terminal apron restricted to commercial air carrier and acft for Customs clearance by PPR. **CAUTION** Migratory bird season Phase II Apr 1-15 and 1 Aug-Nov 30. Rwy 15-33 raised apch lgt in ovrn, Rwy 03 ovrn 800'. Rwy 21 from thld frequently parked train cars (25' AGL) 1000' from thld and gravel piles (to 50' AGL) 1500' from thld. Twy D wingtip clnc line 161' from twy centerline. Rwy 15-33 no rwy end lgt. Rwy 15-33 1' raised thld lgt. Rwy 15-33 1000' ovrn has frangible raised apch lgt. Wingtip clnc lines on military ramp inter-twy 115' from centerline. Twy D and military ramp uncontrolled movement area. Rwy 21 holdline on Twy E 1000' from rwy centerline. Twy into military Aero Club ramp unlgtd. Military ramp acft ctc CHS GND Control for engine start and taxi. **TFC PAT** TPA—Rectangular 1200 (1154), overhead 1700 (1654), light acft 700 (654), C5A 2000 (1954). **NS ABTMT** Practice circle approach prohibited 0200-1100Z. **MISC** Temporary storage of classified materials: up to Secret at Base Ops and Top Secret at Comd Post. Rwy condition reading not avbl. Base OPS DSN 673-3024, C843-963-3024. If civil side of arpt is final destination, acft commander will so indicate on DD 175. Dangerous cargo acft ctc PTD primary, Palmetto OPS secondary. All AMC mission acft ctc Palmetto OPS when within radio range. RVR avbl via FAA twr. Airfield surface wx observations taken in accordance with FAA criteria, not Air Force criteria. Mil wx advisory/warning avbl on request via Metro. LLWAS. Mil wx clsd Mon-Fri, 0001-1000Z, clsd Sat, Sun and hol. Wx briefings for tran aircrews byd normal opr hr avbl via 26 OWS/Barksdale AFB, DSN 781-3952/3949/1212; C318-456-3949/1212. Military Aero Club acft ctc CHS ground control prior to taxi.

WEATHER DATA SOURCES: ASOS (843) 554-9862. HIWAS 113.5 CHS. LLWAS.**COMMUNICATIONS:** ATIS 124.75 UNICOM 122.95 PTD 372.2

RCO 122.1R 113.5T (ANDERSON RADIO)

RCO 113.5T 122.2 122.5 (ANDERSON RADIO)

⑧ APP CON 120.7 306.925 (151°-330°) 135.8 379.925 (331°-150°) 119.3 284.0 317.45

⑧ DEP CON 120.7 306.925 (151°-330°) 135.8 379.925 (331°-150°)

TOWER 126.0 239.0 GND CON 121.9 348.6 CLNC DEL 127.325 291.65

PALMETTO OPS 134.1 349.4 (Have quick timing avbl 255.5) PMSV METRO 233.95

AIRSPACE: CLASS C svc continuous ctc APP CON**RADIO AIDS TO NAVIGATION:** NOTAM FILE CHS.

(H) VORTAC 113.5 CHS Chan 82 N32°53.66' W80°02.27' at fld. 39/05W. HIWAS.

ASHLY NDB (HW/LOM) 329 CH N32°58.58' W80°05.85' 153° 5.5 NM to fld.

ILS 109.7 I-CHS Rwy 15. Class IIE. LOM ASHLY NDB.

ILS 108.9 I-CCI Rwy 33. Class ID. ILS/LOC unusable byd 20° right of course.

CHARLESTON EXECUTIVE (JZI) 6 SW UTC-5(-4DT) N32°42.06' W80°00.20'

CHARLOTTE

17 B S2 FUEL 100LL, JET A NOTAM FILE AND

H-9C, 12G, L-24J

RWY 09-27: H5350X100 (CONC) S-60, D-100 HIRL

IAP

RWY 09: PAPI(P4L)—GA 3.0° TCH 49'. Tree.

RWY 27: PAPI(P4R)—GA 3.0° TCH 42'. Thld dsplcd 350'.

RWY 04-22: H4313X150 (CONC) S-45, D-56 MIRL

RWY 04: Tree.

AIRPORT REMARKS: Attended 1100-0300Z†. Deer and birds on and invof arpt. ACTIVATE MIRL Rwy 04-22 and HIRL Rwy 09-27—CTAF.

WEATHER DATA SOURCES: AWOS-3 123.775 (843) 559-3123 HIWAS 113.5 CHS.**COMMUNICATIONS:** CTAF/UNICOM 122.8

® APP/DEP CON 120.7 CLNC DEL 119.85

RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.

CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66' W80°02.27' 176° 11.7 NM to fld. 39/05W.

HIWAS.

ILS/DME 110.7 I-ETI Chan 44 Rwy 09.

CHERAW MUNI/LYNCH BELLINGER FLD (CQW) 3 NW UTC-5(-4DT) N34°42.77' W79°57.42' CHARLOTTE

239 B S4 FUEL 100LL, JET A NOTAM FILE AND

H-9B, 12G, L-24J, 25E, 35A, 36E

RWY 08-26: H5000X75 (ASPH-PFC) S-30, D-48 MIRL 1.0% up W

IAP

RWY 08: REIL. PAPI(P2L)—GA 3.45° TCH 33'. Tree.

RWY 26: REIL. PAPI(P2L)—GA 3.0° TCH 26'. Pole.

AIRPORT REMARKS: Attended Mon-Sat 1300-2300Z†, Sun 1800-2200Z†. MIRL Rwy 08-26 preset low ints, to increase ints ACTIVATE MIRL Rwy 08-26 PAPI Rwy 08, Rwy 26, REIL Rwy 08, Rwy 26 and wind cone lgt—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.175 (843) 537-3301.**COMMUNICATIONS:** CTAF/UNICOM 122.8

FLORENCE APP/DEP CON 118.6 (1130-0300Z†)

JAX CENTER APP/DEP CON 133.45 (0300-1130Z†)

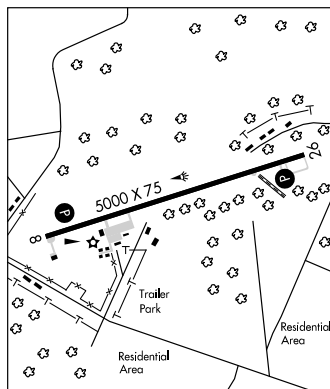
RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

CHESTERFIELD (L) VOR/DME 108.2 CTF Chan 19 N34°39.03'

W80°16.50' 080° 16.2 NM to fld. 560/03W

NDB (MHW) 409 CQW N34°44.51' W79°51.94' 257° 4.8

NM to fld.

**CHESTER CATAWBA RGNL** (DCM) 5 N UTC-5(-4DT) N34°47.36' W81°11.75'

CHARLOTTE

657 B FUEL 100LL, JET A NOTAM FILE AND

H-9B, 12G, L-24J, 25D, 36E

RWY 17-35: H5000X100 (ASPH) S-30, D-44 MIRL 0.4% up N

IAP

RWY 17: PAPI(P2L)—GA 3.1° TCH 34'. Tree. Rgt tfc.

RWY 35: PAPI(P2L)—GA 3.0° TCH 33'. Tree.

RWY 05-23: H4998X100 (ASPH) S-4, D-12 0.4% up SW

RWY 05: Tree. Rgt tfc. RWY 23: Trees.

AIRPORT REMARKS: Attended Mon-Fri 1400-2300Z†, Sat 1300-0100Z†, Sun 1800-0100Z†. Parachute Jumping. Rwy 05-23 severely aged and cracked. Grass beginning to grow through cracks. Rwy 23 dirt access road 0' from thld. ACTIVATE MIRL Rwy 17-35 and PAPI Rwy 17 and Rwy 35—CTAF.

WEATHER DATA SOURCES: AWOS-3 120.975 (803) 385-2011.**COMMUNICATIONS:** CTAF/UNICOM 122.7

® CHARLOTTE APP/DEP CON 120.05

RADIO AIDS TO NAVIGATION: NOTAM FILE CLT.

CHARLOTTE (L) VOR/DME 115.0 CLT Chan 97 N35°11.42'

W80°57.11' 212° 26.9 NM to fld. 732/05W. HIWAS.

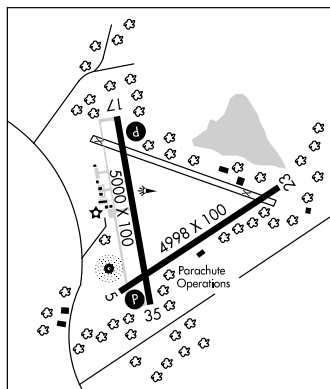
FORT MILL (L) VORTAC 112.4 FML Chan 71 N34°59.34'

W80°57.29' 227° 16.9 NM to fld. 645/02W. NOTAM FILE

AND. SHUTDOWN.

NDB (MHW) 220 DCM N34°47.15' W81°12.05' at fld.

NOTAM FILE AND.

**CHESTERFIELD** N34°39.03' W80°16.50' NOTAM FILE AND.

CHARLOTTE

(L) VOR/DME 108.2 CTF Chan 19 080° 16.1 NM to Cheraw Muni/Lynch Bellinger Fld. 560/03W. L-24J, 25E, 36E

RCO 122.05R 108.2T (ANDERSON RADIO)

CLEMSON N34°40.43' W82°53.21' NOTAM FILE CEU.
 NDB (MHW) 257 CEU at Oconee County Rgnl.

ATLANTA
 L-25C

CLEMSON

OCONEE COUNTY RGNL (CEU) 3 W UTC-5(-4DT) N34°40.32' W82°53.21'

ATLANTA
 L-25C
 IAP

892 B S4 FUEL 100LL, JET A NOTAM FILE CEU

RWY 07-25: H4400X100 (ASPH) S-26 MIRL

RWY 07: REIL. PAPI(P2L)—GA 3.0° TCH 35'. Tree. Rgt tfc.

RWY 25: REIL. PAPI(P2L)—GA 3.0° TCH 35'. Tree.

AIRPORT REMARKS: Attended Mon-Sat 1300-0000Z†. Rwy 07-25 PAEW adjacent 1700-0200Z†. Parachute Jumping. Deer on and in vof rwy. No line of sight between rwy ends. Acft may be operating from private arpt 1 NM W-NW of arpt. MIRL Rwy 07-25 high ints OTS indef. ACTIVATE MIRL Rwy 07-25—CTAF.

WEATHER DATA SOURCES: ASOS 119.275 (864) 882-0144.

COMMUNICATIONS: CTAF/UNICOM 122.7

® GREER APP/DEP CON 118.8 (1100-0445Z†)

ATLANTA CENTER APP/DEP CON 134.8 (0445-1100Z†)

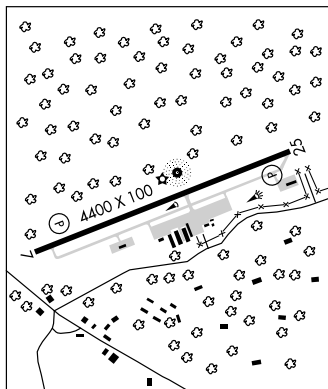
RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

FOOTHILLS (H) VORTAC 113.4 ODF Chan 81 N34°41.75'

W83°17.86' 094° 20.4 NM to fld. 1700/00E.

CLEMSON NDB (MHW) 257 CEU N34°40.43' W82°53.21'

at fld. NOTAM FILE CEU.



CLIO CROP CARE (9W9) 2 SE UTC-5(-4DT) N34°33.69' W79°32.29'

CHARLOTTE

192 TPA-792(600) NOTAM FILE AND

RWY 05-23: 2598X125 (TURF)

RWY 05: Tree. RWY 23: Tree.

AIRPORT REMARKS: Attended Mon-Fri 1300Z†-dusk, Sat 1300-1700Z†.

COMMUNICATIONS: CTAF 122.9

COLLIERS N33°42.44' W82°09.72' NOTAM FILE AND.

ATLANTA

(H) VORTAC 113.9 IRQ Chan 86 161° 15.7 NM to Daniel Fld, GA. 428/04W.

H-9B, 12G, L-24I

RCO 122.1R 113.9T (ANDERSON RADIO)

COLUMBIA METROPOLITAN

CHARLOTTE

H-9B, 12G, L-24I
IAP. AD

RWY 29: MALSR. PAPI(P4L)-GA 3.0° TCH 78'. 0.5% up.

RWY 05: MALSR. PAPI(P4R)—GA 3.0° TCH 60'. 0.4% down.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 05: TORA-8001 TODA-8001 ASDA-7001 LDA-7001

RWY 11: TORA-8601 TODA-8601 ASDA-8601 LDA-8601

RWY 23: TORA-8001 TODA-8001 ASDA-8001 LDA-7001

BWY 29: TOBA-8601 TODA-8601 ASDA-8601 LDA-8601

AIRPORT REMARKS: Attended continuously. Acft ldg with explosives

obtain PPR from arpt ops 803-822-5050. Surface Touchdown rwy

visual range avbl Rwy 05-23. Touchdown, midpoint and rollout rwy

visual range avbl Rwy 05-23: Touchdown, midpoint and rollout rwy
visual range avbl Rwy 11: Touchdown, midfield and rollout rwy

visual range avbl Rwy 29. Helipad H1 located north of Twy B

between Twy M and Twy B. Fee for commercial aircraft over 15,000 pounds. Opr of ultralight vehicles prohibited.

TPA for propeller acft 1236(1000); TPA for turboprop 2036(1800). Sports complex with numerous flood lghts.

TFA for propeller a/c 1250(1000); TFA for turboprop 2050(1800). Sports complex with numerous flood lghts approximately 6500' from anch end Rwy 11. Noise abatement procedure: No turns b/w 1000' for turbine engine

approximately 5500' from open end Rwy 11. Noise abatement procedure: No turns b/w 1000' for turbine engine acft unless directed by ATC

WEATHER DATA SOURCES: ASOS (803) 822-4168

COMMUNICATIONS: ATIS 120.15 UNICOM 122.95

RCO 122.65 (ANDERSON RADIO)

RCO 122.1R 114.7T (ANDERSON RADIO)

® APP/DEP CON 124.15 (110°-289°) 133.4 (290°-109°)

TOWER 119.5 GND CON 121.9 CLNC DEL 119.75

AIRSPACE: CLASS C svc continuous etc **APP CON**

RADIO AIDS TO NAVIGATION: NOTAM FILE CAE.

(H) VORTAC 114.7 CAE Chan 94 N33°51.44' W81°03.24' 328° 5.9 NM to fld. 400/02W.

VOR portion unusable:

327°-073° byd 10 NM blo 4000'

MURRY NDB (LOM) 362 CA N33°58.03' W81°14.68' 112° 6.5 NM to fld. LOM unmonitored.

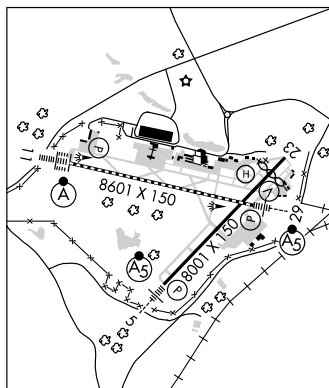
ILS 110.3	I-CAF	Rwy 11	Class IIIF	LOM MURBY NDB	LOM unmonitored
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ILS 108.3	I-VYK	Rwy 29. Class IB. MM OTS indef.
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ILS 108.95	I-GIC	Rwy 05
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ASR

HELIPAD H1: H50X50 (CONC) PERIMETER LGTS



JIM HAMILTON L.B. OWENS (CUB) 2 S UTC-5(-4DT) N33°58.23' W80°59.72'

194 B S4 FUEL 100LL, JET A TPA-1001(807) NOTAM FILE CUB

RWY 13-31: H5011X75 (ASPH) S-20, D-40 MIRL

RWY 13: REIL. PAPI(P2L)—GA 4.0° TCH 70'. Tree. Rgt tfc.

RWY 31: REIL. PAPI(P2R)—GA 3.0° TCH 45'. Thld dspcd 391'. Tree.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 13: TORA-4999 TODA-4999 ASDA-4999 LDA-4999

RWY 31: TORA-4999 TODA-4999 ASDA-4999 LDA-4599

AIRPORT REMARKS: Attended 1100-0300Z†. For svc after hrs call

803-771-7915. Railroad switching yard parallel to Rwy 13-31.

Rwy 13 is designated calm wind rwy. Avoid noise sensitive area N of arpt blo 1500'. No Northbound departure turns either rwy blo 1500'. ACTIVATE MIRL Rwy 13-31 and REIL Rwy 13 and 31—CTAF.

WEATHER DATA SOURCES: ASOS 119.675 (803) 929-0665

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ COLUMBIA APP/DEP CON 133.4 CLNC DEL 124.4

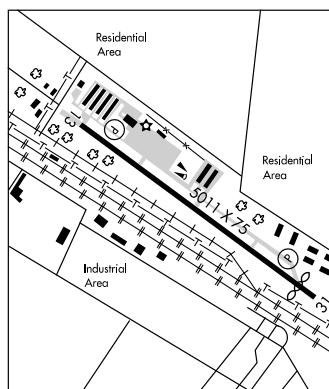
RADIO AIDS TO NAVIGATION: NOTAM FILE CAE.

COLUMBIA (H) VORTAC 114.7 CAE Chan 94 N33°51.44'

W81°03.24' 025° 7.4 NM to fld. 400/02W.

ILS/DME 110.9 I-CUB Chan 46 Rwy 31. LOC only.

ASR



CHARLOTTE

L-241, 35A

IAP

CONWAY-HORRY CO (HYW) 3 W UTC-5(-4DT) N33°49.71' W79°07.33'

35 B S4 FUEL 100LL, JET A, A+ TPA-1035(1000) NOTAM FILE AND

RWY 04-22: H4401X75 (ASPH) S-12.5, D-20 MIRL

RWY 04: PAPI(P2L)—GA 4.0° TCH 39'. Tree. Rgt tfc.

RWY 22: PAPI(P2L)—GA 4.0° TCH 36'. Tree.

AIRPORT REMARKS: Attended 1400-2300Z†. Fuel avbl 24 hrs, credit card self svc. MIRL Rwy 04-22, PAPI Rwy 04 and Rwy 22 opr dusk-0500Z†, after 0500Z† ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.525 (843) 397-8046.

COMMUNICATIONS: CTAF/UNICOM 122.7

Ⓡ MYRTLE BEACH APP/DEP CON 127.4 (1100-0400Z†)

JAX CENTER APP/DEP CON 128.7 (0400-1100Z†)

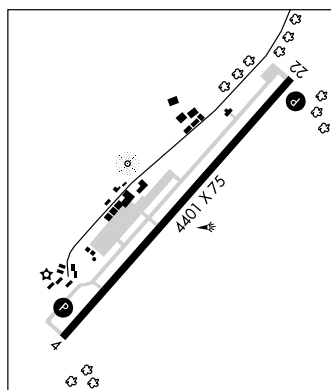
RADIO AIDS TO NAVIGATION: NOTAM FILE CRE.

GRAND STRAND (L) VORTAC 117.6 CRE Chan 123 N33°48.83'

W78°43.47' 276° 19.9 NM to fld. 20/03W.

HORRY NDB (MHW) 370 HYW N33°49.40' W79°07.69' at fld.

NOTAM FILE AND. NDB unmonitored.



CORONACA N34°15.22' W82°05.17' NOTAM FILE GRD.

NDB (MHW) 239 GIW 269° 3.6 NM to Greenwood Co.

ATLANTA

L-241

DARLINGTON

BRANHAM (6J7) 3 SW UTC-5(-4DT) N34°16.93' W79°55.72'

165 B S2 NOTAM FILE AND

RWY 16-34: 3200X100 (TURF) LIRL

RWY 16: VASI(V2L). Trees. Rgt tfc.

RWY 34: VASI(V2L)—GA 4.0° TCH 45'. Road.

AIRPORT REMARKS: Unattended. On call 803-467-6941. Rwy 16-34 slightly bumpy in some areas. Arpt rotating bcn OTS indef. ACTIVATE LIRL Rwy 16-34, VASI Rwy 34—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

CHARLOTTE

DARLINGTON CO JETPORT (UDG) 9 N UTC-5(-4DT) N34°26.96' W79°53.40'

CHARLOTTE

192 B FUEL 100LL, JET A NOTAM FILE UDG

H-9C, 12G, L-24J, 25E, 36E

RWY 05-23: H5500X100 (ASPH) S-25 MIRL

IAP

RWY 05: ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 52'.

RWY 23: REIL. PAPI(P2L)—GA 3.0° TCH 55'. Tree.

RWY 10-28: H4947X150 (ASPH) S-25

RWY 10: Tree. RWY 28: Tree.

RWY 16-34: H4751X150 (ASPH) S-25

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z†. After hrs svc call 843-393-9928. Rwy 10-28 markings are not visible through grass growing through cracks in pavement. Rwy 34 grass has rwy markings obscured. Rwy 16-34 has severe cracking with grass growing through cracks entire rwy. Twy lgtg opr and MIRL Rwy 05-23 are preset low ints dusk-0400Z†, to increase ints—CTAF. After 0400Z† ACTIVATE MIRL Rwy 05-23, REIL Rwy 05 and Rwy 23 and twy lgtg—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.925 (843) 393-8220.**COMMUNICATIONS:** CTAF/UNICOM 123.0

FLORENCE APP/DEP CON 118.6 (1130-0300Z†) CLNC DEL 118.55

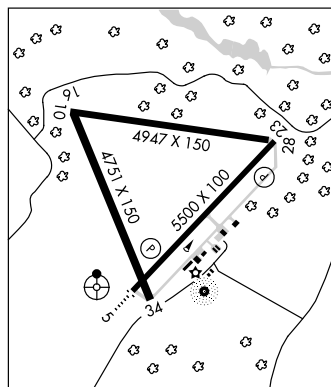
JAX CENTER APP/DEP CON 133.45 (0300-1130Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

FLORENCE (H) VORTAC 115.2 FLO Chan 99 N34°13.98'

W79°39.43' 321° 17.4 NM to fld. 110/03W. HIWAS.

NDB (MHW) 245 UDG N34°26.60' W79°53.24' at fld. NOTAM FILE AND. NDB unmonitored.

**DILLON CO** (DLC) 3 N UTC-5(-4DT) N34°26.94' W79°22.12'

CHARLOTTE

133 B NOTAM FILE AND

L-24J, 35A, 36E

RWY 07-25: H3000X60 (ASPH-AFSC) S-10 MIRL 0.5% up W

IAP

RWY 07: Pole. RWY 25: Tree.

AIRPORT REMARKS: Unattended. Rwy 07-25 has cracks, spalling and grass growing thru cracks.

COMMUNICATIONS: CTAF/UNICOM 122.8

FLORENCE APP/DEP CON 118.6 (1130-0300Z†)

JAX CENTER APP/DEP CON 133.45 (0300-1130Z†)

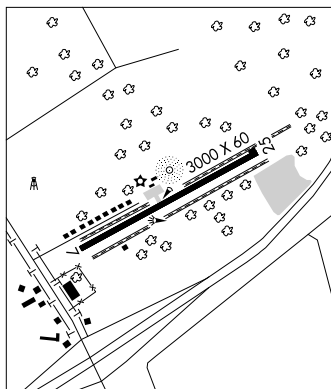
RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

FLORENCE (H) VORTAC 115.2 FLO Chan 99 N34°13.98'

W79°39.43' 051° 19.3 NM to fld. 110/03W. HIWAS.

NDB (MHW) 274 DLC N34°27.01' W79°22.13' at fld.

NOTAM FILE AND.

**DONALDSON CENTER** (See GREENVILLE)**DORCHESTER** N33°03.68' W80°16.64' NOTAM FILE AND.

CHARLOTTE

NDB (MHW) 365 DYB at Summerville.

L-24J

DYANA N34°41.46' W82°26.62' NOTAM FILE ANB.

ATLANTA

NDB (MHW/LOM) 338 GY 044° 5.2 NM to Donaldson Center. Unmonitored 0200-1200Z†.

L-24J, 25C

EDGEFIELD CO (See TRENTON)**EDISTO** N33°27.34' W80°51.51' NOTAM FILE OGB.

CHARLOTTE

(T) VOR/DME 111.4 EDS Chan 51 at Orangeburg Muni. 189/05W.

L-24J

VOR/DME unusable blo 3000'.

ELECTRIC CITY N34°25.15' W82°47.08' NOTAM FILE AND.

ATLANTA

(L) VORTACW 108.6 ELW Chan 23 040° 5.9 NM to Anderson Rgnl. 736/00E.

L-25C

ENOREE N34°18.69' W81°38.16' NOTAM FILE AND.
NDB (MHW) 278 EOE at Newberry County. NDB unmonitored.

CHARLOTTE
L-24J

EVANS N33°51.36' W79°45.95' NOTAM FILE AND.
NDB (MHW) 420 CFY at Lake City Muni CJ Evans Fld.

CHARLOTTE
L-24J, 36E

FAIRFIELD CO (See WINNSBORO)

FAIRMONT N34°54.14' W81°59.09' NOTAM FILE AND.
NDB (HW) 248 FRT 065° 1.6 NM to Spartanburg Downtown Meml.

CHARLOTTE
L-24J, 25C

FAIRVIEW (See LANDRUM)

FLORENCE RGNL (FLO) 3 E UTC-5(-4DT) N34°11.12' W79°43.43'

CHARLOTTE

146 B S4 FUEL 100LL, JET A Class I, ARFF Index A NOTAM FILE FLO

H-9C, 12G, L-24J, 36E

RWY 09-27: H6502X148 (ASPH-GRVD) S-52, D-77, 2S-98, 2D-135 HIRL 0.4% up W

IAP, AD

RWY 09: MALSR. PAPI(P4L)—GA 3.0°TCH 58'.

RWY 27: PAPI(P4L)—GA 3.0°TCH 46'. Trees.

RWY 01-19: H6000X147 (ASPH) S-65, D-100, 2S-127
 MIRL 0.5% up N

RWY 01: REIL. PAPI(P4L)—GA 3.0°TCH 57'. Tree.

RWY 19: REIL. PAPI(P4L)—GA 3.0°TCH 42'. Trees.

AIRPORT REMARKS: Attended 1130-0300Z†. 12 hr PPR for unscheduled air carrier ops with more than 30 passenger seats, ctc arpt manager at 843-669-5001. 442' lighted crane 2 miles NW of arpt. When twr clsd ACTIVATE HIRL Rwy 09-27; PAPI Rwy 01, Rwy 19, Rwy 09 and Rwy 27; REIL Rwy 01, Rwy 19 MALSR Rwy 09 and twy lgtS—CTAF.

WEATHER DATA SOURCES: ASOS (843) 665-1306.

HIWAS 115.2 FLO. LAWRS.

COMMUNICATIONS: CTAF 125.1 ATIS 123.625 UNICOM 122.95

RCO 122.6 (ANDERSON RADIO)

RCO 122.1R 115.2T (ANDERSON RADIO)

Ⓡ **FLORENCE APP/DEP CON** 118.6 (256°-074°) 135.25 (075°-255°)
 (1130-0300Z†)

JAX CENTER APP/DEP CON 133.45 (0300-1130Z†)

TOWER 125.1 (1130-0300Z†) **GND CON** 121.9 **CLNC DEL** 121.9

AIRSPACE: CLASS D svc 1130-0300Z† other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

(H) **VORTAC** 115.2 FLO Chan 99 N34°13.98' W79°39.43' 232° 4.4 NM to fld. 110/03W. HIWAS.

VOR portion unusable:

089°-125° byd 30 NM blo 3000'.

126°-194° byd 10 NM.

195°-223° byd 10 NM blo 4000'.

DME unusable:

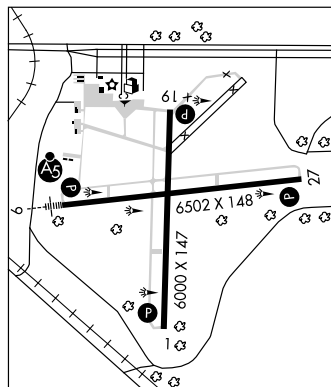
200°-025° byd 30 NM blo 4000'

ALCOT NDB (LOM) 335 FL N34°10.44' W79°51.15' 089° 6.4 NM to fld.

ILS 109.1 I-FLO Rwy 09. Class IB. LOM ALCOT NDB. BC unusable.

ASR (1130-0300Z†)

COMM/NAV/WEATHER REMARKS: Frequency 121.5 monitored by Anderson Radio when FLO twr clsd.



FORT MILL N34°59.34' W80°57.29' NOTAM FILE AND.

CHARLOTTE

(L) **VORTAC** 112.4 FML Chan 71 271° 5.1 NM to Rock Hill York Co/Bryant fld. 645/02W.

L-25D, 36E

VOR portion unusable 115°-123° byd 30 NM blo 3000'. SHUTDOWN.

RCO 122.1R 112.4T (ANDERSON RADIO)

GEORGETOWN CO (GGE) 3 S UTC-5(-4DT) N33°18.68' W79°19.22'

39 B S4 FUEL 100LL, JET A NOTAM FILE AND

RWY 05-23: H6000X100 (ASPH) S-30, D-60 MIRL

RWY 05: PAPI(P2L)—GA 3.0° TCH 31'. Tree.

RWY 23: PAPI(P2L)—GA 3.0° TCH 32'. Tree.

RWY 11-29: H4539X150 (ASPH) S-20, D-30 MIRL 0.3% up W

RWY 11: Tree. RWY 29: Tree.

AIRPORT REMARKS: Attended 1200-0200Z±. Rwy 11-29 CLOSED to acft 12,500 lbs and over. Rwy 11 65' trees 1500' from thld. Rwy 11-29 entire runway is severely cracking and grass is growing through cracks.

WEATHER DATA SOURCES: AWOS-3 118.275 (843) 527-3851.**COMMUNICATIONS:** CTAF/UNICOM 123.0

® MYRTLE BEACH APP/DEP CON 127.4 (1100-0400Z±)

JAX CENTER APP/DEP CON 128.7 (0400-1100Z±)

MYRTLE BEACH CLNC DEL 121.725 GCO 119.7 (MYRTLE BEACH CLNC)

RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.

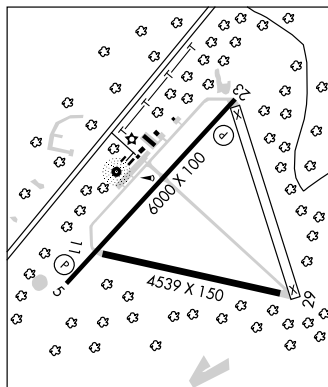
CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66'

W80°02.27' 060° 44.0 NM to fld. 39/05W. HIWAS.

NDB (MHW) 242 GGE N33°18.93' W79°19.47' at fld.

NOTAM FILE AND. Unmonitored 0200-1200Z±.

CHARLOTTE
H-9C, 12G, L-241
IAP

**GRAND STRAND** (See NORTH MYRTLE BEACH)**GRANITEVILLE
TWIN LAKES**

(S17) 4 NW UTC-5(-4DT) N33°38.74' W81°52.02'

540 B NOTAM FILE AND

RWY 06-24: H4000X60 (ASPH) S-12.5

RWY 06: Thld dsplcd 390'. Tree.

RWY 24: Thld dsplcd 421'. Fence.

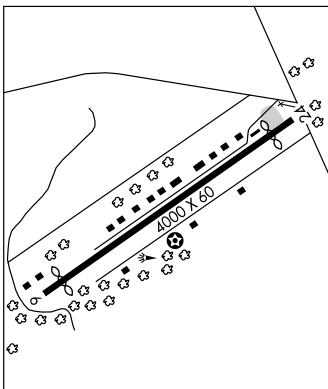
AIRPORT REMARKS: Unattended. CLOSED to acft with maximum gross weight 10,000 lbs and above. No parking for transient acft. ACTIVATE rotating beacon—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE AND.

COLLIERS (H) VORTAC 113.9 IRQ Chan 86 N33°42.44'

W82°09.72' 108° 15.2 NM to fld. 428/04 W.

ATLANTA
L-241

**GREEN SEA** (S79) 4 NW UTC-5(-4DT) N34°11.13' W79°01.24'

95 NOTAM FILE AND

RWY 09-27: 3600X100 (TURF)

RWY 09: Tree. RWY 27: Tree.

AIRPORT REMARKS: Unattended. Parachute Jumping. Remote controlled acft invov arpt. Rwy 09 rwy edge marked with white cones.

COMMUNICATIONS: CTAF 122.9

CHARLOTTE

GREENVILLE

DONALDSON CENTER

(GYH) 6 S UTC-5(-4DT) N34°45.50' W82°22.59'

ATLANTA

955 B S4 FUEL 100LL, JET A OX 1 TPA-1755 (800) Class IV, ARFF Index A

H-9B, 12G, L-24J, 25C

NOTAM FILE GYH

IAP, AD

RWY 05-23: H8000X150 (CONC-GRVD) S-30, D-120, 2S-152, 2D-200 HIRL

RWY 05: MALSR. PAPI(P4L)—GA 3.22° TCH 60'. Rgt tfc. 0.3% down.

RWY 23: PAPI(P4L)—GA 4.14° TCH 80'. Trees. 0.6% up.

AIRPORT REMARKS: Attended 1100-0000Z†. CLOSED to air carrier opr with more than 30 passenger seats except 24 hr PPR call arpt manager 864-277-3152. When twr CLOSED use frequency 125.95 for clearance delivery. ACTIVATE HIRL Rwy 05-23 and PAPI Rwy 05 and 23, MALSR Rwy 05—CTAF.

WEATHER DATA SOURCES: AWOS-3 127.325 (864) 277-5674.

COMMUNICATIONS: CTAF 133.325 UNICOM 122.7

Ⓡ GREER APP/DEP CON 118.8 (1100-0445Z†)

Ⓡ ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z†)

TOWER 133.325 (1200-0200Z†)

GND CON 121.4 CLNC DEL 121.4 CLNC DEL 125.95 (when twr clsd)

AIRSPACE: CLASS D svc 1200-0200Z† other times CLASS G.

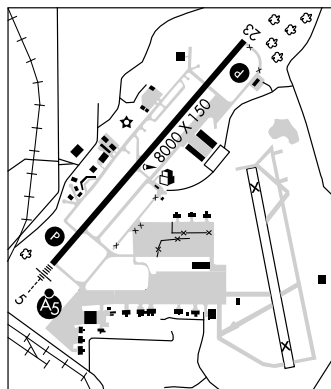
RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

SPARTANBURG (H) VORTAC 115.7 SPA Chan 104 N35°02.02' W81°55.62' 235° 27.6 NM to fld. 910/02W.

DYANA NDB (MHW/LOM) 338 GY N34°41.46' W82°26.62' 044° 5.2 NM to fld. Unmonitored 0200-1200Z†.

ILS/DME 108.3 I-GYH Chan 20 Rwy 05. Class IA. LOM DYANA NDB. NDB unmonitored 0200-1200Z†.

LOC/GS unmonitored 0200-1200Z†. MM OTS indef.



GREENVILLE DOWNTOWN (GMU) 3 E UTC-5(-4DT) N34°50.88' W82°21.00'

ATLANTA

1048 B S4 FUEL 100LL, JET A OX 3, 4 TPA—See Remarks NOTAM FILE GMU

H-9B, 12G, L-24J, 25C

RWY 01-19: H5393X100 (ASPH-GRVD) S-44, D-60, 2D-95 HIRL 1.1% up N

IAP, AD

RWY 01: REIL. MALSF. PAPI(P4L) TCH 35'.

RWY 19: REIL. PAPI(P4L) TCH 30'. Tree. Rgt tfc.

RWY 10-28: H3998X80 (ASPH) S-20 MIRL 0.5% up E

RWY 10: Thld dspcd 265'.

RWY 28: REIL. PAPI(P2L)—GA 3.0' TCH 40'. Thld dspcd 270'. Tree. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 10: TORA-3998 TODA-3998 ASDA-3728 LDA-3463

RWY 28: TORA-3998 TODA-3998 ASDA-3733 LDA-3463

ARRESTING GEAR/SYSTEM

RWY 01: EMAS

AIRPORT REMARKS: Attended Mon-Fri 1000-0300Z†, Sat-Sun

1100-1300Z†. CAUTION—Aircraft operating in Airport Traffic Area south thru east be alert for jet and conventional tfc descending on Greenville-Spartanburg localizer course. Acft inbound from the SSW or on ILS Rwy 01 apch, be alert for tfc 4.5 miles S opr in the Donaldson Center arpt tfc pattern at 1800 ft or below.

TPA—1848(800) for light aircraft, 2048(1000) for heavy aircraft.

No acft permitted on Twy C or Twy D when acft greater than

12,500 lbs is operating on Rwy 10-28. Rwy 10-28 restricted to small acft less than 12,500 lbs when acft is operating on Twy C or Twy D. When twr clsd ACTIVATE HIRL Rwy 01-19, REIL Rwy 01, Rwy 19 and perimeter lights H1 and H2—CTAF.

WEATHER DATA SOURCES: ASOS 127.075 (864) 239-0014. LAWRS.

COMMUNICATIONS: CTAF 119.9 UNICOM 122.95

Ⓡ GREER APP/DEP CON 118.8 (1100-0445Z†) ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z†)

TOWER 119.9 (1200-0300Z†) GND CON 121.25

AIRSPACE: CLASS D svc 1200-0300Z† other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

SPARTANBURG (H) VORTAC 115.7 SPA Chan 104 N35°02.02' W81°55.62' 244° 23.6 NM to fld. 910/02W.

JUDKY NDB (LOM) 521 GM N34°46.81' W82°20.99' 005° 4.1 NM to fld.

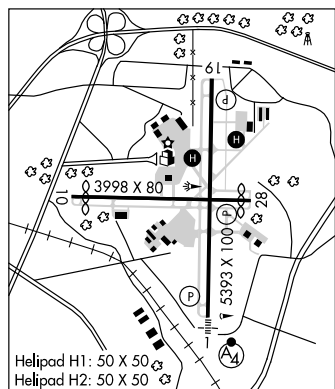
ILS 109.7 I-GMU Rwy 01. Class IB. LOM JUDKY NDB. GS unusable blo 1216' MSL. (ILS unmonitored when twr closed).

ASR (1130-0500Z†)

HELIPAD H1: H50X50 (CONC)

HELIPAD H2: H50X50 (CONC)

HELIPORT REMARKS: No overnight parking on helipads. ACTIVATE perimeter lgts H1 and H2—CTAF.

**GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN** (See GREER)**GREENWOOD CO** (GRD) 3 N UTC-5(-4DT) N34°14.92' W82°09.55'

ATLANTA

631 B S3 FUEL 100LL, JET A NOTAM FILE GRD

H-9B, 12G, L-24J

RWY 09-27: H5003X100 (ASPH) S-30, D-57.5 MIRL

IAP

RWY 09: REIL. PAPI(P2L)—GA 3.0' TCH 52'. Tree.

RWY 27: ODALS. REIL. PAPI(P2L)—GA 3.0' TCH 52'.

AIRPORT REMARKS: Attended Mon-Sat 1300-2300Z†, Sun

1600-2200Z†. Taxiway A parallel to Rwy 09-27 grade extreme

with dropoffs each side of taxiway. MIRL Rwy 09-27 preset on med ints dusk-0400Z†; to increase ints and ACTIVATE REIL Rwys 09 and 27—CTAF; After 0400Z† ACTIVATE MIRL Rwy 09-27 and REIL Rws 09 and 27 and ODALS Rwy 27—CTAF.

WEATHER DATA SOURCES: ASOS 121.125 (864) 388-9115.

COMMUNICATIONS: CTAF/UNICOM 122.8

RCO 122.1R 115.5T (ANDERSON RADIO)

RCO 122.625 (ANDERSON RADIO)

GREER APP/DEP CON 120.6 (1100-0445Z†)

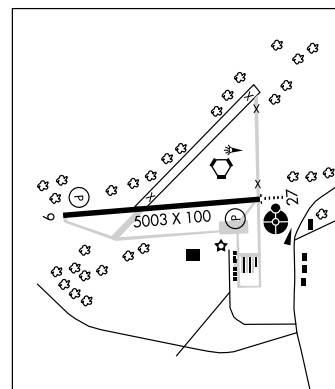
ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE GRD.

(H) VORTAC 115.5 GRD Chan 102 N34°15.09' W82°09.25' at fld. 630/01W.

CORONACA NDB (MHW) 239 GIW N34°15.22' W82°05.17'

269° 3.6 NM to fld.



GREER

GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN (GSP) 3 S UTC-5(-4DT)

ATLANTA

N34°53.74' W82°13.13'

H-9B, 12G, L-24J, 25C

964 B S4 FUEL 100LL, JET A OX 2, 4 LRA Class I, ARFF Index C

IAP, AD

NOTAM FILE GSP

RWY 04-22: H11000X150 (ASPH-CONC-GRVD) S-100, D-210, 2S-175, 2D-625, 2D/2D2-975 HIRL CL

RWY 04: ALSF2. TDZL. Rgt tfc. **RWY 22:** MALSR. VASI(V4R)—GA 3.0° TCH 51'.

AIRPORT REMARKS: Attended continuously. Fuel icing inhibitor avbl. Rwy 04 and Rwy 22 touchdown, midpoint and rollout RVR avbl. Rwy 04 ALSF2 Step 3 only avbl 0445-1100Z†. When twr is clsd ACTIVATE HIRL Rwy 04-22 and MALSR Rwy 22—CTAF. Flight Notification Service (ADCUS) avbl.

WEATHER DATA SOURCES: ASOS (864) 879-0614. LLWAS

COMMUNICATIONS: CTAF 120.1 ATIS 134.25 UNICOM 122.95

GREER RCO 122.65 122.2 (ANDERSON RADIO)

Ⓡ **GREER APP/DEP CON** 118.8 (West) 119.4 (East) 120.6 (1100-0445Z†)

ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z†)

GREER TOWER 120.1 (1100-0445Z†) **GND CON** 121.9

AIRSPACE: CLASS C svc 1100-0445Z† ctc **APP CON** other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

SPARTANBURG (H) VORTAC 115.7 SPA Chan 104 N35°02.02' W81°55.62' 242° 16.6 NM to fld. 910/02W.

GREER NDB (LOM) 287 GS N34°48.93' W82°16.81' 038° 5.7 NM to fld. (Unmonitored when twr clsd).

ILS 109.3 I-GSP Rwy 04. Class IIIE. LOM GREER NDB.

ILS 110.7 I-LMJ Rwy 22. Class IB. (LOC course width 4.25°). ILS unusable 0445-1100Z†.

ASR (1100-0445Z†)

GREER N34°48.93' W82°16.81' NOTAM FILE GSP.

ATLANTA

NDB (LOM) 287 GS 038° 5.7 NM to Greenville-Spartanburg Intl.—Roger Milliken.

L-24J, 25C

(Unmonitored when twr clsd).

RCO 122.65 122.2 (ANDERSON RADIO) at Greenville-Spartanburg Intl.—Roger Milliken.

HAMPTON-VARNVILLE (3JØ) 1 E UTC-5(-4DT) N32°52.06' W81°04.99'

CHARLOTTE

113 NOTAM FILE AND

L-24I

RWY 11-29: H3580X60 (ASPH) S-8

RWY 11: Tree.

RWY 29: Tree.

AIRPORT REMARKS: Unattended. Marked water tank approximately 680' from Rwy 29.

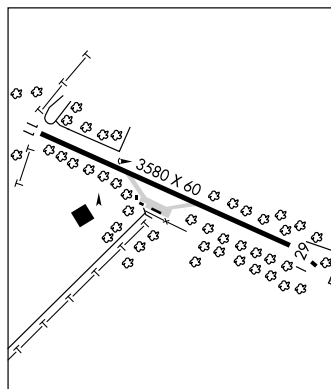
COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE SAV.

SAVANNAH (H) VORTAC 115.95 SAV Chan 106(Y) N32°08.78'

W81°11.95' 014° 43.6 NM to fld. 9/6W.

HIWAS.



HARTSVILLE RGNL (HVS) 3 NW UTC-5(-4DT) N34°24.19' W80°07.15'

CHARLOTTE

364 B S4 FUEL 100LL, JET A NOTAM FILE AND

H-9B, 12G, L-24J, 25E, 36E

RWY 03-21: H5000X75 (ASPH) S-30 MIRL 0.4% up NE

IAP

RWY 03: PAPI (P2L)—GA 3.0° TCH 28'. Tree. Rgt tfc.

RWY 21: PAPI(P2L)—GA 3.0° TCH 23'. Tree.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z†, Sat-Sun

1400-2200Z†. +300' antenna 2.5 miles SW of arpt. MIRL Rwy

03-21 preset on low ints dusk-0200Z†; to increase ints

ACTIVATE—CTAF. After 0200Z† ACTIVATE MIRL—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.225 (843) 339-9625.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ SHAW APP/DEP CON 125.4 (1200-0430Z†)

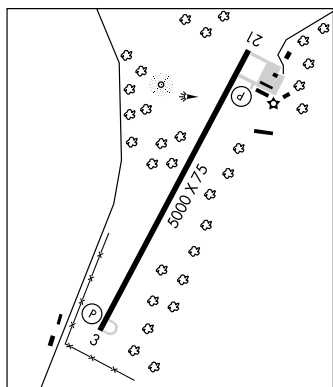
JAX CENTER APP/DEP CON 124.7 (0430-1200Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

CHESTERFIELD (L) VOR/DME 108.2 CTF Chan 19 N34°39.03'

W80°16.50' 155° 16.7 NM to fld. 560/03W.

NDB (MHW) 341 HVS N34°24.40' W80°07.20' at fld.

**HEMINGWAY-STUCKEY** (38J) 3 SW UTC-5(-4DT) N33°43.72' W79°30.96'

CHARLOTTE

54 NOTAM FILE AND

L-24J, 36E

RWY 11-29: H3386X50 (ASPH) S-8

RWY 11: Tree. RWY 29: Tree.

AIRPORT REMARKS: Unattended. Arpt CLOSED except with PPR. Call

843-933-0016 for PPR. Rwy 29 75' trees 200' from thld across

entire apch. Rwy 11 15' dirt road 40' from thld. Rwy 11-29

cracked with grass growth. Rwy 11-29 pavement is cracking badly

and has grass growing through cracks.

COMMUNICATIONS: CTAF 122.9

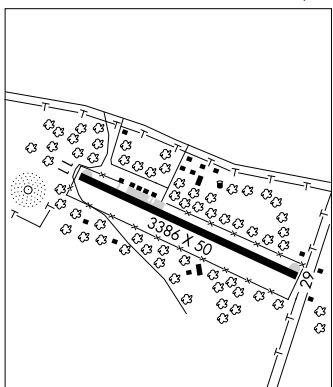
RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

FLORENCE (H) VORTAC 115.2 FLO Chan 99 N34°13.98'

W79°39.43' 170° 31 NM to fld. 110/03W. HIWAS.

STUCKEY NDB (MHW) 236 HEK N33°43.71' W79°31.50'

at fld. NOTAM FILE AND. Out of svc indefinitely.

**HESTER MEML** (See CALHOUN FALLS)

HILTON HEAD ISLAND**HILTON HEAD** (HXD) 3 E UTC-5(-4DT) N32°13.46' W80°41.85'

CHARLOTTE

19 B **FUEL** 100LL, JET A Class I, ARFF Index A NOTAM FILE AND

L-24H

RWY 03-21: H4300X100 (ASPH-GRVD) S-55, D-75, 2S-94 MIRL

IAP

RWY 03: REIL. PAPI(P4L)—GA 3.3° TCH 40'. Thld dsplcd 299'. Tree.**RWY 21:** REIL. PAPI(P4R)—GA 3.0° TCH 40'. Thld dsplcd 300'. Tree.**AIRPORT REMARKS:** Attended 1100-0300Z†. Deer on and invof arpt.

Birds on and invof arpt. Parasail ops within 3 NM radius of SAV

009°/15NM, surface to 1500' during dalgt hrs.CLOSED to

unscheduled air carrier ops with more than 30 passenger seats

except 24 hr PPR call arpt manager 843-255-2950. Noise

abatement procedures in effect—ctc arpt manager

843-681-6744. Transient parking ramp not visible from twr.

Non-std separation between rwy and general aviation Twy A.

ACTIVATE MIRL Rwy 03-21 and REIL Rwy 03 and Rwy 21—CTAF.

NOTE: See Special Notices—VFR Arrivals, VFR Departures.

WEATHER DATA SOURCES: AWOS-3 121.4 (843) 342-5072. LAWRS.**COMMUNICATIONS:** CTAF 118.975 ATIS 121.4

RCO 122.55 (ANDERSON RADIO)

Ⓡ SAVANNAH APP/DEP CON 125.3 (1100-0500Z†) CLNC DEL 121.1

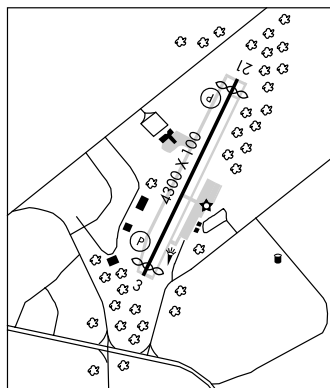
JACKSONVILLE CENTER APP/DEP CON 120.85 (0500-1100Z†)

TOWER 118.975 (1100-0100Z†) **GND CON** 121.1**AIRSPACE:** CLASS D svc 1100-0100Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE SAV.

SAVANNAH (H) VORTAC 115.95 SAV Chan 106(Y) N32°08.78' W81°11.95' 085° 26 NM to fld. 9/6W.

HIWAS.

ILS/DME 111.3 I-HXD Chan 50 Rwy 21. Localizer only.

**HOLLY HILL** (5J5) 2 SE UTC-5(-4DT) N33°18.06' W80°23.64'

CHARLOTTE

96 NOTAM FILE AND

RWY 04-22: 2900X150 (TURF)**RWY 04:** Tree. **RWY 22:** Tree.**AIRPORT REMARKS:** Unattended.**COMMUNICATIONS:** CTAF 122.9**HORRY** N33°49.40' W79°07.69' NOTAM FILE AND.

CHARLOTTE

NDB (MHW) 370 HYW at Conway-Horry Co. NDB unmonitored.

L-241, 35A

HUGGINS MEML (See TIMMONSVILLE)**JIM HAMILTON L.B. OWENS** (See COLUMBIA)**JUDKY** N34°46.81' W82°20.99' NOTAM FILE GMU.

ATLANTA

NDB (LOM) 521 GM 005° 4.1 NM to Greenville Downtown.

KINGSTREE N33°43.07' W79°51.30' NOTAM FILE AND.

CHARLOTTE

NDB (MHW) 404 CKI at Williamsburg Rgnl. NDB Unmonitored.

L-241

KINGSTREE**WILLIAMSBURG RGNL** (CKI) 3 W UTC-5(-4DT) N33°43.03' W79°51.42'CHARLOTTE
H-9C, 126, L-241
IAP

67 B NOTAM FILE AND

RWY 14-32: H5000X75 (ASPH) S-30, D-45 MIRL

RWY 14: PAPI(P2L)—GA 3.0° TCH 40'. Tree.

RWY 32: PAPI(P2L)—GA 3.0° TCH 40'. Tree.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 14-32 and PAPI
Rwys 14 and 32—CTAF.

WEATHER DATA SOURCES: AWOS-3 124.775 (843) 382-3000.

COMMUNICATIONS: CTAF/UNICOM 122.7

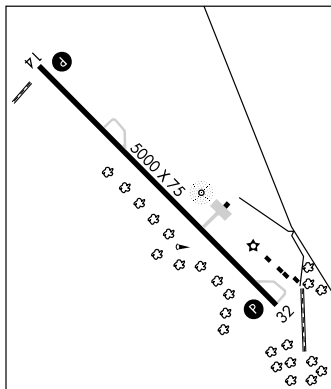
® MYRTLE BEACH APP/DEP CON 127.4 (1100-0400Z‡)

JAX CENTER APP/DEP CON 127.95 (0400-1100Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

VANCE (L) VORTAC 110.4 VAN Chan 41 N33°28.49'

W80°26.92' O70° 33 NM to fld. 140/06W.

KINGSTREE NDB (MHW) 404 CKI N33°43.07' W79°51.30'
at fld. NDB Unmonitored.**KIRK AIR BASE** (See LANCASTER)**LAKE CITY MUNI CJ EVANS FLD** (51J) 2 SW UTC-5(-4DT) N33°51.22' W79°46.09'CHARLOTTE
L-241, 36E
IAP

80 B S4 FUEL 100LL NOTAM FILE AND

RWY 01-19: H3700X75 (ASPH) S-10 MIRL

RWY 01: VASI(V2L)—GA 3.0° TCH 25'. Tree.

RWY 19: VASI(V2L)—GA 3.0° TCH 25'. Tree.

AIRPORT REMARKS: Unattended. Rwy 01-19 cracking badly with grass growing thru cracks. ACTIVATE MIRL Rwy
01-19—CTAF.

COMMUNICATIONS: CTAF 122.9

® FLORENCE APP/DEP CON 135.25 (1130-0300Z‡)

® JAX CENTER APP/DEP CON 133.45 (0300-1130Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

FLORENCE (H) VORTAC 115.2 FLO Chan 99 N34°13.98' W79°39.43' 197° 23.4 NM to fld. 110/03W.

HIWAS.

EVANS NDB (MHW) 420 CFY N33°51.36' W79°45.95' at fld. NOTAM FILE AND.

LAKE KEOWEE N34°48.67' W82°42.21' NOTAM FILE AND.ATLANTA
L-25C

NDB (MHW) 408 LQK at Pickens Co.

LANCASTER**KIRK AIR BASE** (T73) 5 SE UTC-5(-4DT) N34°40.46' W80°40.94'

CHARLOTTE

578 S4 NOTAM FILE AND

RWY 15-33: H2600X40 (ASPH) S-8 LIRL

RWY 15: Tree.

RWY 33: Tree.

AIRPORT REMARKS: Attended 1300-2330Z‡. Rwy 15 has 30' drop at thld. Rwy 33 has 10' drop at thld. For LIRL Rwy
15-33 call 803-286-8800.

COMMUNICATIONS: CTAF 122.9

• • • • •

550

WATERWAY 05-23: 4400X300 (WATER)

WATERWAY 16-34: 3000X300 (WATER)

WATERWAY 11-29: 2245X600 (WATER)

SEAPLANE REMARKS: Waterways 05-23 and 11-29 and 16-34—Water lanes are not marked—lengths change with water
levels—ctc arpt manager and check NOTAM's.

LANCASTER CO—MC WHIRTER FLD (LKR) 4 W UTC−5(−4DT) N34°43.38' W80°51.28'

CHARLOTTE

486 B S4 FUEL 100LL JET A NOTAM FILE AND

H-9B, 12G, L-24J, 25D, 36E

RWY 06-24: H6004X100 (CONC) S-19, D-28 MIRL 0.4% up NE

IAF

RWY 06: PAPI(P2L)—GA 3.0°TCH 47'. Thld displcd 105'. Tree.

RWY 24: PAPI(P2L)—GA 3.0°TCH 43'. Tree.

AIRPORT REMARKS: Attended 1400-2300Z†. For after hrs fuel call 803-493-3226. Deer on and invof arpt. ACTIVATE MIRL Rwy 06-24—CTAF.

WEATHER DATA SOURCES: AWOS-3 120.825 (803) 286-6444.

COMMUNICATIONS: CTAF/UNICOM 122.725

® **CHARLOTTE APP/DEP CON** 120.05

GCO 121.725 (CHARLOTTE APCH)

RADIO AIDS TO NAVIGATION: NOTAM FILE CLT.

CHARLOTTE (L) VORW/DME 115.0 CLT Chan 97 N35°11.42'

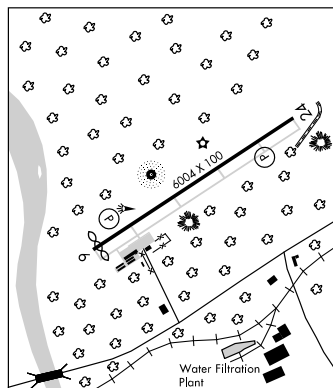
W80°57.11' 175° 28.4 NM to fld. 732/05W. **HIWAS.**

FORT MILL (L) VORTAC 112.4 FML Chan 71 N34°59.34'

W80°57.29' 165° 16.7 NM to fld. 645/02W. NOTAM FILE AND. SHUTDOWN.

NDB (MHW) 400 LKR N34°43.43' W80°51.49' at fld.

NOTAM FILE AND.



LANDRUM

FAIRVIEW (33A) 3 SE UTC−5(−4DT) N35°09.44' W82°07.34'

ATLANTA

1046 B NOTAM FILE AND

RWY 14-32: H2770X30 (ASPH) S-6.5 LIRL

RWY 14: Tree. Rgt tfc. **RWY 32:** Tree.

AIRPORT REMARKS: Unattended. Rwy 14-32 centerline markings NSTD size and separation. Twy markings are of wrong color. Rwy 14-32 is very bumpy with excessive patches along entire surface length. ACTIVATE LIRL Rwy 14-32—CTAF.

COMMUNICATIONS: CTAF 122.9

LAURENS CO (LUX) 3 E UTC−5(−4DT) N34°30.42' W81°56.83'

CHARLOTTE

697 B S4 FUEL 100LL TPA-1500 (803) NOTAM FILE AND

L-24J, 25C

RWY 08-26: H3898X75 (ASPH) S-12.5 MIRL

IAF

RWY 08: PAPI(P2L)—GA 3.0° TCH 41'.

RWY 26: PAPI(P2L)—GA 3.0° TCH 37'.

AIRPORT REMARKS: Attended Mon-Sat 1500-2300Z†, Sun 1800-2300Z†. Self svc 24 hr fuel with credit card. PAPI Rwy 08, Rwy 26 opr continuously. ACTIVATE MIRL Rwy 08-26—CTAF.

WEATHER DATA SOURCES: AWOS-3 123.975 (864) 682-3639.

COMMUNICATIONS: CTAF/UNICOM 122.8

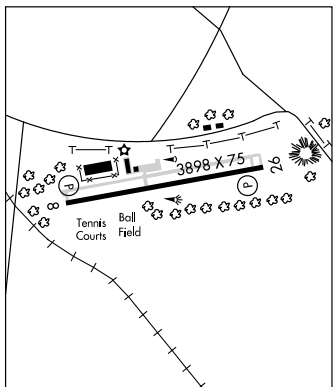
GREER APP/DEP CON 120.6 (1100-0445Z†)

ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE GRD.

GREENWOOD (H) VORTAC 115.5 GRD Chan 102 N34°15.09'

W82°09.25' 035° 18.4 NM to fld. 630/01W.



LEE CO (See BISHOPVILLE)

LEXINGTON CO AT PELION (See PELION)

LORIS

TWIN CITY (5J9) 3 NE UTC-5(-4DT) N34°05.31' W78°51.90'

99 B S4 NOTAM FILE AND

RWY 08-26: H3694X60 (ASPH-AFSC) S-8 LIRL

RWY 08: Thld dsplcd 200'. Tree.

RWY 26: SAVASI(S2L)—GA 3.5'TCH 34'. Tree.

AIRPORT REMARKS: Unattended. Parachute Jumping. Birds on and in/ovf arpt. For svc call 843-756-7404. Rwy 26; 3 ft ditch 40 ft rgt/left of centerline end of thld. 30' P-line 180' left.

COMMUNICATIONS: CTAF 122.9

® **MYRTLE BEACH APP/DEP CON** 119.2 (1100-0400Z‡)

JAX CENTER APP/DEP CON 128.7 (0400-1100Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE CRE.

GRAND STRAND (L) VORTAC 117.6 CRE Chan 123 N33°48.83' W78°43.47' 340° 17.9 NM to fld. 20/03W.



CHARLOTTE

L-24J, 35A

IAP

LOWCOUNTRY RGNL (See WALTERBORO)

MANNING N33°35.29' W80°12.37' NOTAM FILE AND.

NDB (MHW) 381 MNI at Santee Cooper Rgnl. Unmonitored.

CHARLOTTE

L-24I

MANNING

SANTEE COOPER RGNL (MNI) 7 S UTC-5(-4DT) N33°35.23' W80°12.52'

103 B S2 FUEL 100LL NOTAM FILE AND

RWY 02-20: H3602X75 (ASPH) S-30 MIRL

RWY 02: PAPI(P2L)—GA 4.0'TCH 25'. Tree.

RWY 20: PAPI(P2L)—GA 4.0'TCH 25'. Tree.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z‡. Self svc fuel avbl 24 hrs with credit card. Vehicles opr adjacent to Rwy 02-20 and cross at midfield periodically. Glider ops on and in/ovf arpt. MIRL preset on low ints dusk-0400Z‡, to increase ints ACTIVATE—CTAF. After 0400Z‡ ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 120.175 (803) 478-6060.

COMMUNICATIONS: CTAF/UNICOM 122.8

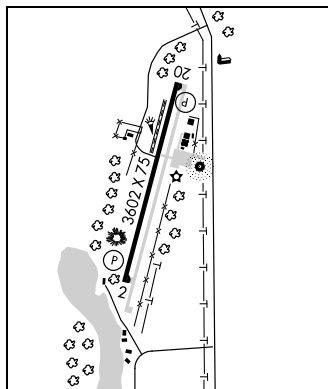
® **SHAW APP/DEP CON** 125.4 (1200-0430Z‡)

JAX CENTER APP/DEP CON 124.7 (0430-1200Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

VANCE (L) VORTAC 110.4 VAN Chan 41 N33°28.49' W80°26.92' 067° 13.8 NM to fld. 140/06W.

MANNING NDB (MHW) 381 MNI N33°35.29' W80°12.37' at fld. Unmonitored.



CHARLOTTE

L-24I

IAP

MARION CO (MAO) 3 E UTC-5(-4DT) N34°10.87' W79°20.08'

92 B FUEL 100LL, JET A NOTAM FILE AND

RWY 04-22: H4503X100 (ASPH) S-26, D-34 MIRL

RWY 04: Rgt tfc.

RWY 22: Rgt tfc.

AIRPORT REMARKS: Attended 1200-2200Z†. For fuel after hrs call 843-526-1409 Mon-Sun; call either 843-423-7325 or 843-464-0401. Student training on and invof arpt.

WEATHER DATA SOURCES: AWOS-3 119.875 (843) 423-4231.

COMMUNICATIONS: CTAF/UNICOM 122.8

FLORENCE APP/DEP CON 135.25 (1130-0300Z†)

JAX CENTER APP/DEP CON 133.45 (0300-1130Z†)

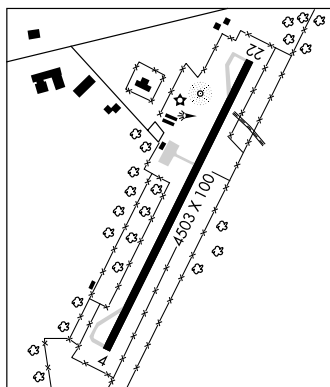
RADIO AIDS TO NAVIGATION: NOTAM FILE FLO.

FLORENCE (H) VORTAC 115.2 FLO Chan 99 N34°13.98'

W79°39.43' 104° 16.3 NM to fld. 110/03W. HIWAS.

NDB (MHW) 388 MAO N34°11.11' W79°19.99' at fld.

NOTAM FILE AND.



CHARLOTTE

L-24J, 35A, 36E

IAP

MARLBORO CO JETPORT-H.E. AVENT FLD (See BENNETTSVILLE)

McCORMICK CO (S19) 1 SE UTC-5(-4DT) N33°54.49' W82°16.02'

459 B NOTAM FILE AND

RWY 18-36: H3598X75 (ASPH) S-12.5 MIRL

RWY 18: Tree.

RWY 36: Tree.

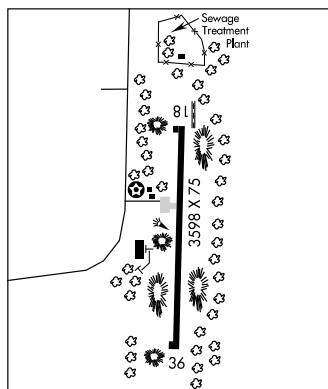
AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 18-36 and rotating bcn—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE GRD.

GREENWOOD (H) VORTAC 115.5 GRD Chan 102 N34°15.09'

W82°09.25' 196° 21.3 NM to fld. 630/01W.



ATLANTA

L-24I

MC ENTIRE JNGB (MMT) AF (ANG ARNG) 10 E UTC-5(-4DT) N33°55.13' W80°48.04' **CHARLOTTE**
 254 B TPA—See Remarks Class I, ARFF Index A NOTAM FILE AND Not insp. **H-9B, 12G, L-241**
RWY 14-32: H9009X150 (PEM) PCN 37 F/A/W/T HIRL **DIAP, AD**
RWY 14: PAPI(P4L). **RWY 32:** ALSF1. PAPI(P4L).
RWY 05-23: H2033X90 (ASPH) PCN 46 R/B/W/T MIRL
ARRESTING GEAR/SYSTEM
RWY 14 BAK-14 BAK-12A(B) (1061') **BAK-14 BAK-12A(B)** (1500') **RWY 32**
MILITARY SERVICE: LGT Rotating bcn and rwy lgt opr Mon-Fri SS-0400Z± except holidays. **ACTIVATE** MIRL Rwy
 05-23—CTAF. **A-GEAR** BAK-12A cable raised by BAK-14 device on request to twr. Departure end cable will be
 raised for all tail hook equipped acft. **JASU 1(A/M32A-86) 9(AM32A-60A)**
FUEL J8 DoD cost accounting code number rqr from other military svc for refueling. **FLUID** SP LPOX LOX
OIL 0-133-148-156 SOAP **TRAN ALERT** Svc avbl Mon-Fri 1300-2000Z± except holidays.
MILITARY REMARKS: Opr Mon-Fri 1300-0400Z± except holidays, Sat-Sun 1300-2100Z±. See FLIP AP/1
 Supplementary Arpt Remark. **RSTD** PPR 48 hr notice rqr, ctc ANG OPS DSN 583-8231, C803-647-8231, fax DSN
 583-8641, C803-647-8641. Rwy 05-23 is copter only. **CAUTION** Possible crosswind hazard due to rwy
 environment and affect on wind equipment causing wind to be slightly greater than measured. See AP/1 for
 weather observation limitations. Remain blo 1000' until dep end of rwy or unless twr clears. **BASH** Phase 1 April
 thru October. **BASH** Phase 2 November thru March. Aircraft sunshades 742' W of Rwy 14-32. **TFC PAT**
 TPA—Overhead 1500(1246), helicopter/rectangular 1000(746). **MISC** Wx observation visibility is limited from 5/8
 mile south to 1/10 mile west northwest. Rwy 05-23 is helicopter only. First 2000' Rwy 32 is concrete, remaining
 7009' is asphalt. Tran parking extremely ltd. Fleet svc not avbl without prior coordination. Limited fire protection
 avbl from 2000-1130Z±. Twy widths are as follows: Twy J, B, C, D, E are 50', Twy A is 98', Twy F is 95', Twy G
 is 147', Twy H is 75', Twy M and Twy L are 40' wide. Heavy acft will park at north or south end of rwy, ctc Base
 OPS or LGX. Tran acft expect progressive taxi instructions. **ARNRG** PPR for Army, AR, ARNG R/W acft only, DSN
 583-1814. Opr Mon-Fri 1300-2100Z± except holidays. Fuel not avbl for tran acft.
COMMUNICATIONS: SFA CTAF 132.4 PTD 298.3
 (R) **SHAW APP/DEP CON** 125.4 285.4 (1200-0430Z±)
 (R) **JACKSONVILLE CENTER APP/DEP CON** 124.7 269.55 (0430-1200Z±)
TOWER 132.4 253.5 (Mon-Fri 1300-0400Z± except holidays, Sat-Sun 1300-2100Z±) **GND CON** 127.625
 226.675 **PMSV METRO** 342.5 Ctc Shaw AFB METRO—Forecast avbl Mon-Fri 1200-0400Z±, and Sat-Sun
 1300-2100Z±, clsd hol. DSN 583-8247, C803-647-8247. Opr hrs may vary with local flying schedule.
 Remote and tran aircrew wx brief call 26 OWS Barksdale AFB DSN 781-4775 C318-456-4775. Afld Wx
 monitored by AN/FMQ-19 ASOS, augmented by human obsn when rqr during opr hr. **ARNRG OPS PTD** 246.7
 41.30
AIRSPACE: CLASS D svc Mon-Fri 1300-0400Z± except holidays, Sat-Sun 1300-2100Z± other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE MMT.
(L) VORTACW 113.2 MMT Chan 79 N33°55.45' W80°48.14' at fld. 248/5W. Unmonitored Mon-Fri
 0400-1300Z± except holidays, Sat-Sun 2100-1300Z±. No NOTAM MP Mon 1300-1700Z±.
NDB (MHW) 427 MMT N33°56.14' W80°47.90' at fld. Unmonitored Mon-Fri 0400-1300Z± except
 holidays, Sat-Sun 2100-1300Z±.
ILS 111.1 I-MMT Rwy 32. Unmonitored Mon-Fri 0400-1300Z± except holidays, Sat-Sun
 2100-1300Z±. No NOTAM MP Mon 1300-1700Z±.
ASR/PAR
COMM/NAV/WEATHER REMARKS: Radar see Terminal FLIP for Radar Minima.

MERRITT FLD (See BEAUFORT MCAS)

MONCK'S CORNER N33°11.46' W80°02.01' NOTAM FILE AND.
NDB (MHW) 354 MKS at Berkeley Co.

CHARLOTTE
L-241

MONCK'S CORNER**BERKELEY CO**

(MKS) 1 SW UTC-5(-4DT) N33°11.13' W80°02.18'

73 B S4 FUEL 100LL, JET A NOTAM FILE AND

RWY 05-23: H4351X75 (ASPH) S-26, D-38 MIRL

RWY 05: PAPI(P2L)—GA 3.0°TCH 46'. Tree.

RWY 23: PAPI(P2L)—GA 3.0°TCH 43'. Tree.

AIRPORT REMARKS: Attended 1300-2300Z†.

ACTIVATE MIRL Rwy 05-23—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.175 (843) 761-1486.

COMMUNICATIONS: CTAF/UNICOM 123.05

Ⓡ CHARLESTON APP/DEP CON 135.8

RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.

CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66'

W80°02.27' 005° 17.4 NM to fld. 39/05W.

HIWAS.

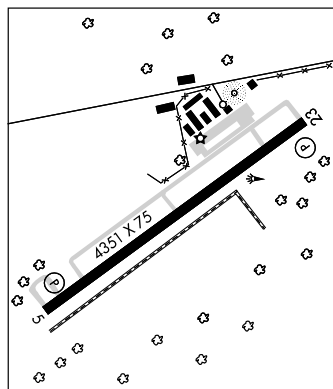
MONCK'S CORNER NDB (MHW) 354 MKS N33°11.46' W80°02.01'

at fld. NOTAM FILE AND.

CHARLOTTE

L-241

IAP

**MT PLEASANT RGNL-FAISON FLD** (LRO) 9 NE GMT-5(-4DT) N32°53.87' W79°46.97'

12 B FUEL 100LL, JET A TPA-1000(988) NOTAM FILE AND

RWY 17-35: H3700X75 (ASPH) S-12.5 MIRL

RWY 17: PAPI(P4L)—GA 4.0° TCH 27'. RWY 35: PAPI (P4L)—GA 4.0° TCH 27'. Rgt tfc.

AIRPORT REMARKS: Attended 1100-0100Z†. Deer and birds on and invof arpt. Two 2000' towers approximately 4-6 miles E of arpt. ACTIVATE MIRL Rwy 17-35—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.625 (843) 849-0438.

COMMUNICATIONS: CTAF/UNICOM 122.7

CHARLESTON APP/DEP CON 135.8

RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.

CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66' W80°02.27' 094° 12.9 NM to fld. 39/05W.

HIWAS.

CHARLOTTE

L-241

IAP

MURRY N33°58.03' W81°14.68' NOTAM FILE CAE.

NDB (LOM) 362 CA 112° 6.5 NM to Columbia Metropolitan. LOM unmonitored.

CHARLOTTE

I-241

MYRTLE BEACH INTL (MYR) 3 SW UTC-5(-4DT) N33°40.79' W78°55.70'

25 B S4 FUEL 100LL, JET A Class I, ARFF Index C NOTAM FILE AND

RWY 18-36: H9503X150 (ASPH-CONC-GRVD) S-50, D-175, 2D-325, 2D/2D2-650

PCN 27 F/A/X/T HIRL

RWY 18: MALS. PAPI(P4L). P-line. Rgt tfc.

RWY 36: MALS. PAPI(P4L). Trees.

AIRPORT REMARKS: Attended 1100-0400Z†. Gulls on and invof arpt. Rwy 18-36 concrete first 1000' both ends. No approval required for pushback at terminal gates; push is at pilots discretion; remain clear of twys. U.S. customs user fee arpt. U.S. Customs svc avbl Mon-Fri 1300-2200Z†, other times PPR and fee charged. Arpt lgts opr dusk-0500Z†. When twr clsd ACTIVATE HIRL Rwy 18-36—CTAF. Rwy 18 touchdown and rollout runway visual range avbl. Rwy 36 touchdown and rollout runway visual range avbl.

WEATHER DATA SOURCES: AWOS-3 124.5 (843) 238-0335. LAWRS.

COMMUNICATIONS: CTAF 128.45 ATIS 123.925 UNICOM 122.95

Ⓡ APP/DEP CON 127.4 (171°-321°) 119.2 (322°-170°) (1100-0400Z†)

JAX CENTER APP/DEP CON 128.7 (0400-1100Z†)

TOWER 128.45 (1100-0400Z†) GND CON 120.3 CLNC DEL 132.175 (Key mike 4 times to activate Clncl Del)

AIRSPACE: CLASS C svc 1100-0400Z† other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE CRE.

GRAND STRAND (L) VORTAC 117.6 CRE Chan 123 N33°48.83' W78°43.47' 235° 13 NM to fld. 20/03W.

ILS 109.5 I-MYR Rwy 18. MM OTS indef.

ILS 111.9 I-BSQ Rwy 36. Class IE.

CHARLOTTE

H-9C, 12G, L-241, 35B

IAP, AD

NEWBERRY COUNTY (EOE) 3 N UTC-5(-4DT) N34°18.56' W81°38.44'

CHARLOTTE
L-24J
IAP

570 B S4 FUEL 100LL NOTAM FILE AND

RWY 04-22: H4000X75 (ASPH) D-30 MIRL 0.9% up NE

RWY 04: PAPI(P2L)—GA 3.15° TCH 42'.

RWY 22: PAPI(P2L)—GA 3.15° TCH 43'. Rgt tfc.

AIRPORT REMARKS: Unattended. Fuel self-serve. Deer on invof arpt.

ACTIVATE PAPI Rwy 04 and Rwy 22 and MIRL Rwy 04-22—CTAF.

WEATHER DATA SOURCES: AWOS-3 124.275 (803) 276-2419.

COMMUNICATIONS: CTAF/UNICOM 122.8

COLUMBIA APP/DEP CON 133.4

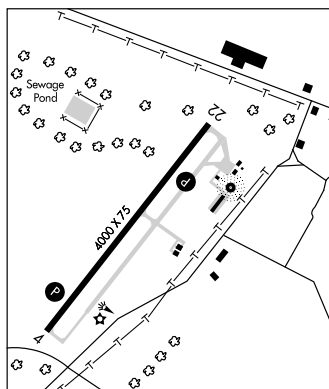
RADIO AIDS TO NAVIGATION: NOTAM FILE GRD.

GREENWOOD (H) VORTAC 115.5 GRD Chan 102 N34°15.09'

W82°09.25' 083° 25.8 NM to fld. 630/01W.

ENOREE NDB (MHW) 278 EOE N34°18.69' W81°38.16' at fld.

NOTAM FILE AND. NDB unmonitored.



NORTH AF AUX (XNO)(KXNO) AF 2 NE UTC-5(-4DT) N33°36.57' W81°04.87'

CHARLOTTE
H-9B, 126, L-24J
IAP, DIAP, AD

321 B NOTAM FILE AND Not insp.

RWY 06-24: H1000X150 (ASPH-GRVD) PCN 60 F/A/W/T HIRL

RWY 06: Thld dsplcd 1000'. RWY 24: Thld dsplcd 1000'.

RWY 05-23: H3493X90 (ASPH-GRVD) PCN 97 F/B/W/T

MILITARY SERVICE: LGT ACTIVATE HIRL Rwy 06-24—131.1. Rotating bcen off during lgt out training.

MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Rmk. **RSTD** Rwy 05-23 CLOSED 1300-1500Z± monthly 3rd Thu. Rwy 06-24 CLOSED 1601-2100Z± monthly 3rd Thu. Rwy 06 and Rwy 24 takeoff distance avbl 9000', landing distance avbl 8000'. Rwy condition reading not avbl. Twy D clsd during box-in-one ops to Rwy 23. Opr rstd during Bird Watch Condition MODERATE (tkf or ldg permission only when dep/arr route avoid ident bird act, no local IFR/VFR tfc pattern activity) and SEVERE (tkf and ldg prohibited without OG/CC approval), ctc twr for current Bird Watch Condition. Minimum 2 week prior coordinate rqr for all users. Point of ctc is Charleston AFB, 437 OSS/OSO, DSN 673-5554, C843-963-5554. All aircrews will ctc North Drop Zone on 118.15 235.775 prior to 5 NM to DZ. This airspace is subject to be rstd by NOTAM. Rwy 06-24, no 180° star turns on asphalt, conduct all turns on concrete ends. IFR opr limited to 1 acft on app/dep at a time. **CAUTION** Intense heavy Mil jet and miscellaneous acft executing numerous cargo and personnel drops, hi-speed lo-level formation flt, and air/land opr. Rwy 06-24 NW tree line 750' from rwy centerline. Rwy 06-24 large ditch 350' from rwy centerline at midfield on NW side rwy. Intense gnd training on reservation. Rwy 05-23 used as ldg zone 3500' x 90'. Rwy condition reading not avbl. **TFC PAT** TPA—Rectangular 1300(979), Overhead 1800(1479). **NS ABTMT** Overflight of North, SC prohibited. **MISC** Twr limited to advisory svc only. VFR only. Cancel IFR clnc with Columbia APP prior to opr at North AF Aux. Alfd surface observations are derived from non-augmented ASOS. Local PMSV unavbl, contact Charleston METRO-233.95.

WEATHER DATA SOURCES: ASOS 118.525.

COMMUNICATIONS: CTAF 118.15 235.775

COLUMBIA APP/DEP 124.15 338.2

TWR 118.15 235.775 GND 118.15 235.775 COLUMBIA CLNC DEL 120.475

AIRSPACE: CLASS D Effective by NOTAM.

RADIO AIDS TO NAVIGATION: NOTAM FILE CAE.

COLUMBIA (H) VORTAC 114.7 CAE Chan 94 N33°51.44' W81°03.23' 187° 14.9 NM to fld. 400/02W.

COMM/NAV/WEATHER REMARKS: Mobile Microwave Landing System VMC only.

NORTH MYRTLE BEACH**GRAND STRAND** (CRE) 1 NW UTC-5(-4DT) N33°48.71' W78°43.44'32 B S4 **FUEL** 100LL, JET A NOTAM FILE AND**RWY 05-23:** H5997X100 (ASPH) S-30, D-60 HIRL**RWY 05:** REIL. PAPI (P2L)—GA 3.0° TCH 40'. Tree.**RWY 23:** MALSR. Tree. PAPI (P2L)—GA 2.98° TCH 55'. Rgt tfc.**AIRPORT REMARKS:** Attended 1200-0300Z†. Gulls on and invof arpt. Extensive banner tow ops from arpt along coastline 10 NM NE to 20 SW. After 0500Z† ACTIVATE HIRL Rwy 05-23, REIL Rwy 05, and MALSR Rwy 23—CTAF.**WEATHER DATA SOURCES:** ASOS (843) 361-2802.**COMMUNICATIONS:** CTAF 124.6 ATIS 119.625 UNICOM 122.95

RCO 122.1R 117.6T (ANDERSON RADIO)

RCO 123.6 (ANDERSON RADIO)

Ⓡ **MYRTLE BEACH APP/DEP CON** 119.2 (1100-0400Z†) **JAX CENTER APP/DEP CON** 128.7 (0400-1100Z†)**STRAND TOWER** 124.6 (1200-0200Z†) **GND CON** 121.8**AIRSPACE:** CLASS D svc 1200-0200Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE CRE.(L) **VORTAC** 117.6 CRE Chan 123 N33°48.83' W78°43.47' at fld. 20/03W. DME unusable 294°-010° byd 20 NM. VOR portion unusable 303°-312°.**CALAB NDB (LOM)** 267 CR N33°53.12' W78°37.80' 233° 6.4 NM to fld**ILS** 111.7 I-CRE Rwy 23. LOM CALAB NDB. BC unusable.

CHARLOTTE

H-9C, 12G, L-35A

IAP, AD

OCONEE COUNTY RGNL (See CLEMSON)**ORANGEBURG****DRY SWAMP** (1DS) 6 S UTC-5(-4DT) N33°23.27' W80°54.67'180 S4 **FUEL** 100LL NOTAM FILE AND**RWY 02-20:** 2900X60 (TURF)**RWY 02:** Thld dsplcd 900'. Tree.**RWY 20:** Thld dsplcd 900'. Tree.**AIRPORT REMARKS:** Attended 1300-2200Z†. Glider ops on and invof arpt.**COMMUNICATIONS:** CTAF 122.9

CHARLOTTE

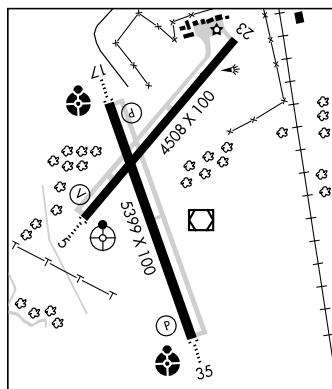
ORANGEBURG MUNI (OGB) 2 S UTC-5(-4DT) N33°27.42' W80°51.56'195 B **FUEL** 100LL, JET A NOTAM FILE OGB**RWY 17-35:** H5399X100 (ASPH) S-30, D-72 MIRL**RWY 17:** ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 42'. Tree.**RWY 35:** ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 42'.**RWY 05-23:** H4508X100 (ASPH) S-30, D-50 MIRL 0.6% up NE**RWY 05:** ODALS. REIL. VASI(V4L)—GA 3.0° TCH 20'. Tree. Rgt tfc.**RWY 23:** REIL. Tree.**AIRPORT REMARKS:** Attended Mon-Fri 1300-2200Z†, Sat 1400-2100Z† clsd Sun. ACTIVATE ODALS Rwy 17 and Rwy 35, REIL Rwy 05 and Rwy 23, Rwy 17 and Rwy 35, MIRL Rwy 05-23 and Rwy 17-35—CTAF. VASI Rwy 05, ODALS Rwy 05 and PAPI Rwy 17 and Rwy 35 opr continuously.**WEATHER DATA SOURCES:** ASOS 118.525 (803) 536-3901.**COMMUNICATIONS:** CTAF/UNICOM 122.7Ⓡ **COLUMBIA APP/DEP CON** 124.15**RADIO AIDS TO NAVIGATION:** NOTAM FILE OGB.**EDISTO (T) VORW/DME** 111.4 EDS Chan 51 N33°27.34'

W80°51.51' at fld. 189/05W.

CHARLOTTE

H-9B, 12G, L-24I

IAP



PAGELAND (PYG) 3 SE UTC-5(-4DT) N34°44.53' W80°20.71'

575 B NOTAM FILE AND

RWY 05-23: H3395X60 (ASPH) S-125 MRL 0.7% up NE

RWY 05: REIL. Tree. **RWY 23:** REIL. Tree.

AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

CHARLOTTE APP/DEP CON 120.05

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

CHESTERFIELD (L) VOR/DME 108.2 CTF Chan 19 N34°39.03'

W80°16.50' 331° 6.5 NM to fld. 560/03W.

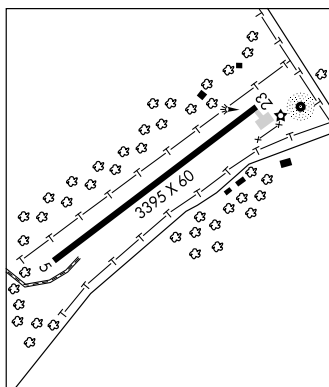
NDB (MHW) 270 PYG N34°44.70' W80°20.29' at fld.

Unusable byd 15 NM. NDB unmonitored.

CHARLOTTE

L-24J, 25D, 36E

IAP



PELION

LEXINGTON CO AT PELION (6J0) 2 N UTC-5(-4DT) N33°47.68' W81°14.75'

452 B FUEL: 100LL NOTAM FILE AND

RWY 18-36: H4335X60 (ASPH) S-12.5 MRL

RWY 36: PAPI (P2R)—GA 3.0° TCH 40'.

AIRPORT REMARKS: Unattended. Self svc fuel avbl with credit card.

P-line 800' from thld Rwy 36 end marked with red balls. Access into terminal building, use the key pad and enter the UNICOM freq followed by the '#' button. Pilot controlled lighting OTS indef. Arpt lighting on continuous from 2300Z until 0300Z, after 0300Z until dawn, ACTIVATED with pilot controlled lighting. ACTIVATE MRL Rwy 18-36 PAPI Rwy 36—CTAF. PAPI Rwy 36 on during daylight.

COMMUNICATIONS: CTAF/UNICOM 123.0

® COLUMBIA APP/DEP CON 124.15

RADIO AIDS TO NAVIGATION: NOTAM FILE CAE.

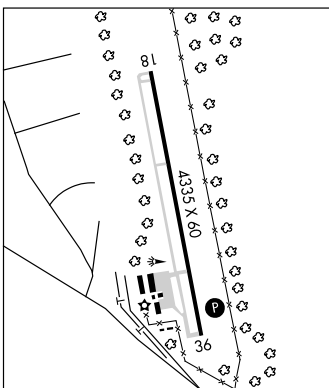
COLUMBIA (H) VORTAC 114.7 CAE Chan 94 N33°51.44'

W81°03.24' 251° 10.3 NM to fld. 400/02W.

CHARLOTTE

L-24I

IAP



PICKENS CO (LQK) 4 S UTC-5(-4DT) N34°48.60' W82°42.17'

1013 B S1 FUEL 100LL, JET A NOTAM FILE AND

RWY 05-23: H5002X100 (ASPH) S-35, D-65 MIRL 1.0% up NE

RWY 05: PAPI(P2L)—GA 3.0° TCH 26'.

RWY 23: PAPI(P2L)—GA 3.0° TCH 26'.

AIRPORT REMARKS: Attended 1300-2200Z±. Noise abatement procedure in effect, phone 864-843-5803. ACTIVATE MIRL Rwy 05-23—CTAF.

WEATHER DATA SOURCES: AWOS-3 120.0 (864) 843-5801.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ GREER APP/DEP CON 118.8 (1100-0445Z±)

ATLANTA CENTER APP/DEP CON 134.8 (0445-1100Z±)

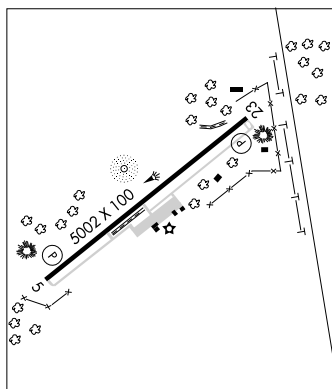
RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

ELECTRIC CITY (L) VORTACW 108.6 ELW Chan 23 N34°25.15'

W82°47.08' 010° 23.8 NM to fld. 736/00E.

LAKE KEOWEE NDB (MHW) 408 LQK N34°48.67' W82°42.21' at fld.

COMM/NAV/WEATHER REMARKS: AWOS wind unreliable.



RALLY N34°53.40' W81°04.85' NOTAM FILE AND.

NDB (MHW/LOM) 227 UZ 016° 6 NM to Rock Hill (York Co) Bryant Fld.

ATLANTA

H-9B, 12G, L-25C

IAP

RIDGELAND (3J1) 1 NW UTC-5(-4DT) N32°29.56' W80°59.54'

79 B S4 FUEL 80, 100LL NOTAM FILE AND

RWY 03-21: H2692X70 (ASPH) S-12.5 MIRL

RWY 03: PAPI(P2L)—GA 3.25° TCH 45'. Tree. RWY 21: Tree.

AIRPORT REMARKS: Attended 1400Z±—Dusk. Glider ops invof arpt. Rwy 03 20' drop at end of pavement.

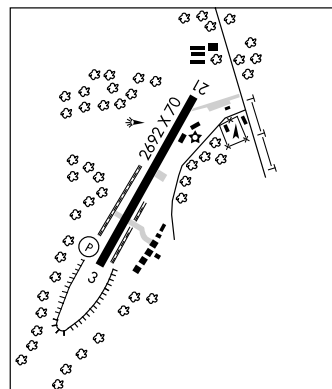
COMMUNICATIONS: CTAF/UNICOM 122.7

RADIO AIDS TO NAVIGATION: NOTAM FILE SAV.

SAVANNAH (H) VORTAC 115.95 SAV Chan 106(Y) N32°08.78'

W81°11.95' 033° 23.3 NM to fld. 9/6W.

HIWAS.



CHARLOTTE

L-24J, 25D, 36E

ROBERT F SWINNIE (See ANDREWS)

ROCK HILL (YORK CO) BRYANT FLD (UZA) 4 NW UTC-5(-4DT) N34°59.27' W81°03.43'

666 B S4 FUEL 100LL, JET A OX 3 NOTAM FILE UZA

RWY 02-20: H5500X100 (ASPH) S-30, D-60 MIRL

RWY 02: MALSR. PAPI(P2L)—GA 3.0° TCH 35'. Tree.

RWY 20: PAPI(P2L)—GA 3.0° TCH 39'. Tree.

AIRPORT REMARKS: Attended 1300-0100Z±. Wildlife invof arpt. Voluntary Noise abatement procedure in effect. MIRL Rwy 02-20 and MALSR Rwy 02 preset med ints dusk-0400Z±; to increase ints and ACTIVATE after 0400Z±—CTAF.

WEATHER DATA SOURCES: ASOS 120.775 (803) 981-9388.

COMMUNICATIONS: CTAF/UNICOM 123.05

Ⓡ CHARLOTTE APP/DEP CON 120.05 CLNC DEL 126.85

RADIO AIDS TO NAVIGATION: NOTAM FILE CLT.

CHARLOTTE (L) VORW/DME 115.0 CLT Chan 97 N35°11.42' W80°57.11' 208° 13.2 NM to fld. 732/05W. HIWAS.

FORT MILL (L) VORTAC 112.4 FML Chan 71 N34°59.34' W80°57.29' 271° 5.1 NM to fld. 650/02W. NOTAM FILE AND. SHUTDOWN.

RALLY NDB (MHW/LOM) 227 UZ N34°53.40' W81°04.85' 016° 6 NM to fld. NOTAM FILE AND.

ILS 108.5 I-UZA Rwy 02. Class IA. LOM RALLY NDB.

CHARLOTTE

H-9B, 12G, L-25D, 36E

IAP

ST GEORGE (6J2) 3 E UTC-5(-4DT) N33°11.73' W80°30.51'

CHARLOTTE
L-241
IAP

85 B NOTAM FILE AND

RWY 05-23: H3201X60 (ASPH) S-21, D-30 LIRL

RWY 05: Tree. RWY 23: Tree.

AIRPORT REMARKS: Unattended. Parachute Jumping. Arpt bcn OTS indef.

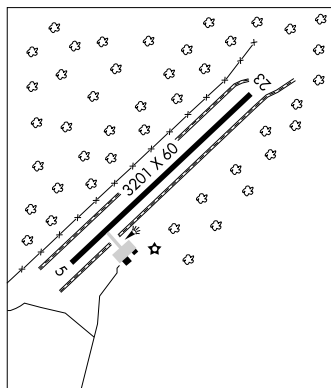
COMMUNICATIONS: CTAF/UNICOM 122.8

® CHARLESTON APP/DEP CON 120.7

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

VANCE (L) VORTAC 110.4 VAN Chan 41 N33°28.49'

W80°26.92' 196° 17 NM to fld. 140/06W.



SALUDA CO (6J4) 4 S UTC-5(-4DT) N33°55.61' W81°47.68'

CHARLOTTE
L-241

555 B S4 NOTAM FILE AND

RWY 01-19: H3189X60 (ASPH) S-11.3 MIRL

RWY 01: Tree.

RWY 19: PAPI(P2L)—GA 4.15° TCH 52'. Tree.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z+, Sat 1300-1700Z+. 30' drop off N end of Rwy 01. Rwy 01-19 MIRL OTS indef. ACTIVATE MIRL Rwy 01-19 and PAPI Rwy 19—CTAF.

COMMUNICATIONS: CTAF 122.9

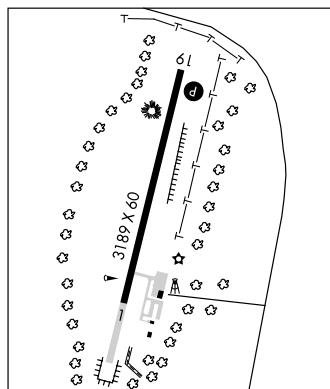
® AUGUSTA APP/DEP CON 126.8 119.15

COLUMBIA APP/DEN CON 124.15

RADIO AIDS TO NAVIGATION: NOTAM FILE GRD.

GREENWOOD (H) VORTAC 115.5 GRD Chan 102 N34°15.09'

W82°09.25' 138° 26.5 NM to fld. 630/01W.



SANTEE COOPER RGNL (See MANNING)

SHAW AFB (SSC)(KSSC) AF 6 NW UTC-5(-4DT) N33°58.36' W80°28.23'

CHARLOTTE

241 B TPA—See Remarks Class I, ARFF Index Ltd. NOTAM FILE AND Not insp.

H-9B, 12G, L-241

RWY 04L-22R: H10016X150 (CONC) PCN 51 R/B/W/T HIRL

DIAP, AD

RWY 04L: ALSF1. PAPI(P4L).

RWY 22R: ALSF1. PAPI(P4L).

RWY 04R-22L: H8001X150 (CONC)

PCN 34 R/C/W/T HIRL

RWY 04R: SALSF. PAPI(P4L).

RWY 22L: ALSF1. PAPI(P4L).

ARRESTING GEAR/SYSTEM

RWY 04L ← HOOK BAK-12B(B) (45' OVRN) HOOK BAK-12B(B) (1457')

HOOK BAK-12B(B) (1447') HOOK BAK-12B(B) (45' OVRN) → **RWY 22R**

RWY 04R ← HOOK E5 (75' OVRN) HOOK BAK-12B(B) (1203')

HOOK BAK-12B(B) (1202') HOOK E5 (74' OVRN) → **RWY 22L**

MILITARY SERVICE: **LGT** All rwy thld lgt gated. **A-GEAR** Normal BAK-12 configuration: Rwy 04R-22L: apch down, dep up. Rwy 04L-22R: Rwy 22R dep up at all times, when Rwy 22R is active, both dep and apch up. Call twr for other configurations, BAK-12B apch end avbl 20 min prior notice. **JASU** 2(M32A-60) 2(A/M32A-86) **FUEL**

J8, J8+ 100. **FLUID** SOAP SP PRESAIR LPOX LOX. LOX-24 hours prior notification required. **OIL**

O-128-133-148 **TRANS ALERT** No fleet service avbl. Expect 2-3 hr svc/refuel delays weekends, holidays and

peak periods; ltd maintenance. Concurrent refueling not avbl. No de-ice svc avbl. Tran acft will retain drag chutes to park. Tran Alert svc avbl Mon-Fri 1230-0030Z†, Sat-Sun 1500-2000Z†; not avbl holidays. Tran alert after hrs support is not authorized unless supporting higher HQ directed missions.

MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Remark. **RSTD** All civilian acft rqr 20 FW approval (C803-895-2356) and an approved civil acft ldg permit prior to executing practice apch. Taxilane A, South of Twy B closed to all acft except 20 FW mission approved acft. ACC quiet hr in effect 0330-1100Z†. PPR, 24 hr prior notice rqr, ctc Base OPS. Tran acft contact Base OPS PTD prior to arrival to confirm svc rqr. DSN 965-2356, C803-895-2357, fax 2360. Issued PPR valid 1 hr +/- ETA, early/late arr/dep must re-coordinate. Tran acft ctc twr prior to exiting rwy. **CAUTION** Tran pilots will not climb above 1000' on dep during VFR conditions until clear of arpt boundary unless specifically cleared to do so by ATC. Specific taxi instructions for heavy acft ctc GND (may rqr back taxiing on rwy to appropriate ladder twy). Uncontrolled vehicle traffic on twy and apron. Acft with wingspan larger than 180' must use wing walkers when taxiing on Twy B centerline, 45' obstruction located 140' south twy centerline. **TFT PAT** TPA—Rectangular 1741(1500), overhead 2241(2000). **CSTMS/AG/IMG** 24 hr prior notice rqr for CSTMS and AG. **MISC** ACC RSRS applied to ACC acft only. Wx observation surface visibility ltd 1/16 SM SW-NE. Augmented/backed up AN/FMQ-19 AMOS in use when rqr during opr hr and for resource protection.

COMMUNICATIONS: **SFA** ATIS 132.125 270.1 **PTD** 139.6 372.2

Ⓡ **APP/DEP CON** 125.4 285.4 (1200-0430Z†)

Ⓡ **JACKSONVILLE CENTER APP/DEP CON** 124.7 269.55 (0430-1200Z†)

TOWER 126.65 254.25 **GND CON** 126.1 275.8 **CLNC DEL** 121.8 289.4

COMD POST (RAYMOND 26) 381.3 **PMVS METRO** 342.5 (Rdo svc unavbl until further notice. Forecaster avbl

Mon-Fri 1000-1800Z†, clsd hol, ctc DSN 965-2362, C803-895-2362. Opr hrs may vary with local flying schedule. After hrs remote and tran aircrew WX briefing call 26 OWS Barksdale AFB DSN 781-4775.)

AIRSPACE: **CLASS C** svc 1200-0430Z† other times **CLASS D**.

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

(L) **TACAN** Chan 38 SSC (110.1) N33°58.67' W80°27.97' at fld. 241/5W. No NOTAM MP Fri 1100-1300Z† (1500/3+1).

TACAN unusable:

126-184° byd 10 NM blo 4,000'

261°-345° byd 10 NM blo 4,000'

150°-175° byd 25 NM blo 5,000'

295°-325° byd 25 NM blo 5,000'

ILS 110.1 I-SSC Rwy 04L. No NOTAM MP Mon-Thu 1100-1300Z† (1500/3+1).

ILS 108.7 I-JWU Rwy 22R. No NOTAM MP Mon-Thu 1100-1300Z† (1500/3+1).

COMM/NAV/WEATHER REMARKS: Radar No NOTAM MP Tue-Fri daily 0400-1100Z† (1500/3+1).

SPARTANBURG DOWNTOWN MEML (SPA) 3 SW UTC-5(-4DT) N34°54.94' W81°57.39'

CHARLOTTE

803 B S4 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE SPA

H-9B, 12G, L-24I, 25C

RWY 05-23: H5202X100 (ASPH) S-30, D-45 HIRL

IAP

RWY 05: MALSR. VASI(V4L)—GA 3.0°TCH 59'. Tree.

RWY 23: VASI(V4L)—GA 3.0°TCH 57'. Tree.

AIRPORT REMARKS: Attended Mon-Fri 1200-0100Z†, Sat-Sun 1300-0100Z†. For fuel after hrs call 864-574-8552. TPA—1603(800) for piston acft and 2103(1300) for turboprop acft with small jets. ACTIVATE Rotating Beacon—CTAF. ACTIVATE HIRL Rwy 05-23 and MALSR Rwy 05—CTAF.

WEATHER DATA SOURCES: AWOS-3 133.925 (864) 587-2529.**COMMUNICATIONS:** CTAF/UNICOM 123.0

RCO 122.1R 115.7T (ANDERSON RADIO)

Ⓡ GREER APP/DEP CON 119.4 (1100-0445Z†) CLNC DEL 120.55

ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z†)

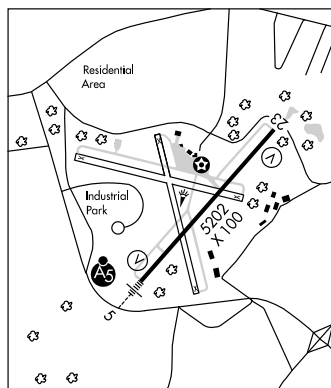
AIRSPACE: CLASS E svc 1100-2300Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE AND.

(H) VORTAC 115.7 SPA Chan 104 N35°02.02' W81°55.62' 194° 7.2 NM to fld. 910/02W.

VORTAC unusable: 351°-099° below 15,000'.

FAIRMONT NDB (HW) 248 FRT N34°54.14' W81°59.09' 065° 1.6 NM to fld.

ILS 109.1 I-SPA Rwy 05. LOC and outer marker unmonitored.

**STUCKEY** N33°43.71' W79°31.50' NOTAM FILE AND.

CHARLOTTE

NDB (MHW) 236 HEK at Hemingway-Stuckey. OTS indef.

L-24I, 36E

SUMMERVILLE (DYB) 5 NW UTC-5(-4DT) N33°03.81' W80°16.76'

CHARLOTTE

56 B S4 FUEL 100LL, JET A NOTAM FILE AND

L-24I

RWY 06-24: H3700X75 (ASPH) S-12.5, D-30 MIRL

IAP

RWY 06: PAPI(P2L)—GA 3.3° TCH 28'. Thld dsplcd 250'. Rgt tfc.

RWY 24: PAPI(P2L)—GA 3.3° TCH 28'.

AIRPORT REMARKS: Attended 1300-0000Z†. For FBO call 843-851-0970. Banner towing 1500/blo intermittently daily; south side Rwy 06-24. Rwy 06 PAPI OTS indef. MIRL Rwy 06-24 opr dusk-0300Z†; after 0300Z† ACTIVATE—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.575 (843) 821-8403.**COMMUNICATIONS:** CTAF/UNICOM 123.0

Ⓡ CHARLESTON APP/DEP CON 120.7

RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.

CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66' W80°02.27' 315° 15.9 NM to fld. 39/05W. HIWAS.

DORCHESTER NDB (MHW) 365 DYB N33°03.68' W80°16.64' at fld. NOTAM FILE AND.

SUMTER (SMS) 4 N UTC-5(-4DT) N33°59.70' W80°21.68'

CHARLOTTE

182 B S4 FUEL 100LL, JET A NOTAM FILE AND

H-9B, 12G, L-24I

RWY 05-23: H5501X100 (ASPH) S-26, D-55 MIRL

IAP

RWY 05: REIL. PAPI(P2L)—GA 3.0°TCH 26'. Tree. Rgt tfc.

RWY 23: ODALS. REIL. PAPI(P2L)—GA 3.0°TCH 26'. Tree.

RWY 14-32: 3181X120 (TURF)

RWY 14: Tree. RWY 32: Tree. Rgt tfc.

AIRPORT REMARKS: Attended 1300-2300Z†. For fuel after 0100Z† call 803-983-6577. Wildlife on and in/ovf arpt with increased activity dusk and dawn. After 0100Z† ACTIVATE MIRL Rwy 05-23, REILS Rwy 05 and Rwy 23 —CTAF. PAPI Rwy 05 and Rwy 23 continuous operations.

WEATHER DATA SOURCES: AWOS-3 118.075 (803) 469-6750.**COMMUNICATIONS:** CTAF/UNICOM 122.7

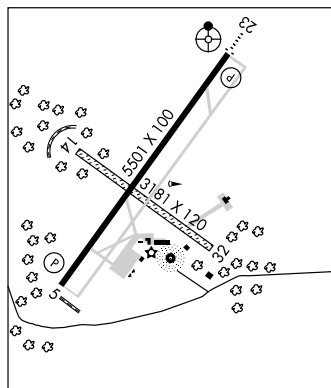
Ⓡ SHAW APP/DEP CON 125.4 (1200-0430Z†)

JAX CENTER APP/DEP CON 124.7 (0430-1200Z†)

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

VANCE (L) VORTAC 110.4 VAN Chan 41 N33°28.49' W80°26.92' 014° 31.5 NM to fld. 140/06W.

NDB (MHW) 252 SMS N33°59.45' W80°21.60' at fld. (Unmonitored SS-SR).



TIMMONSVILLE**HUGGINS MEML** (58J) 1 NE UTC-5(-4DT) N34°08.26' W79°55.24'

CHARLOTTE

143 B NOTAM FILE AND

RWY 14-32: 3090X150 (TURF)

RWY 14: Tree. RWY 32: Tree.

AIRPORT REMARKS: Unattended. Parachute Jumping. ACTIVATE LIRL Rwy 14-32 and rotating bcn—CTAF.

COMMUNICATIONS: CTAF 122.9

TRENTON**EDGEFIELD CO** (6J6) 1 SE UTC-5(-4DT) N33°44.21' W81°49.17'

CHARLOTTE

610 TPA—1410(800) NOTAM FILE AND

RWY 11-29: 2640X85 (TURF)

RWY 11: Tree. RWY 29: Tree.

RWY 15-33: 1584X56 (TURF)

RWY 15: RWY 33: Tree.

AIRPORT REMARKS: Unattended. Radio controlled acft on and invof arpt. Deer on and invof arpt.

COMMUNICATIONS: CTAF 122.9

TWIN CITY (See LORIS)**TWIN LAKES** (See GRANITEVILLE)**UNION CO, TROY SHELTON FLD** (35A) 1 SW UTC-5(-4DT) N34°41.22' W81°38.47'

CHARLOTTE

610 B S2 FUEL 100LL NOTAM FILE AND

RWY 05-23: H3508X60 (ASPH) S-12.5 MIRL 1.0% up NE

RWY 05: PAPI(P2L)—GA 4.0° TCH 40'. Tree.

RWY 23: PAPI(P2L)—GA 4.0° TCH 38'. Tree.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z‡. Self-serve fuel

avbl 24 hrs. For svc after hrs call 864-426-3003. MIRL Rwy

05-23 preset on med ints dusk-0500Z‡, after 0500Z‡

ACTIVATE—CTAF. ACTIVATE PAPI Rwy 05 and Rwy 23—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.7

GREER APP/DEP CON 119.4 (1100-0445Z‡)

ATLANTA CENTER APP/DEP CON 135.35 (0445-1100Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE AND.

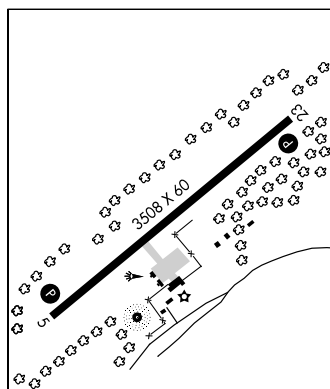
GREENWOOD (H) VORTAC 115.5 GRD Chan 102 N34°15.09'

W82°09.25' 045° 36.4 NM to fld. 630/01W.

NDB (MHW) 326 UOT N34°41.04' W81°38.54' at fld.

L-24J, 25D

IAP

**VANCE** N33°28.49' W80°26.92' NOTAM FILE AND.

CHARLOTTE

(L) VORTAC 110.4 VAN Chan 41 067° 13.8 NM to Santee Cooper Rgnl. 140/06W.

H-9B, 12G, L-24I

VOR unusable:

209°-243° blo 2000'

244°-208° blo 18,000'

RCO 122.1R 110.4T (ANDERSON RADIO)

WALTERBORO N32°55.55' W80°38.41' NOTAM FILE AND.

CHARLOTTE

NDB (MHW) 221 RBW at Lowcountry Rgnl.

L-24I

WALTERBORO**LOWCOUNTRY RGNL** (RBW) 2 NE UTC-5(-4DT) N32°55.26' W80°38.44'**CHARLOTTE**

101 B S4 FUEL 100LL, JET A NOTAM FILE AND

H-9B, 126, L-24J

RWY 05-23: H6002X100 (ASPH-CONC) S-26, D-75, 2S-95 MIRL

IAP

RWY 05: PAPI(P2L)—GA 4.0° TCH 50'. Tree.

RWY 23: ODALS. REIL. PAPI(P2L)—GA 3.0° TCH 45'. Tree.

RWY 17-35: H5705X100 (ASPH-CONC) S-17, D-40

RWY 17: Tree. RWY 35: Tree.

RWY 09-27: H5408X100 (ASPH-CONC) S-17, D-40

RWY 09: Tree. RWY 27: Tree.

AIRPORT REMARKS: Attended 1330-2300Z†. 100LL self-svc fuel avbl 24 hrs. For after hrs svc call 843-549-2549. Parachute Jumping. Lgt'd water tank .98 miles from Rwy 09 thr on rwy centerline. Firing range between Rwy 17 and Rwy 09. Twys between Rwy 05, Rwy 09, Rwy 17 and Rwy 23 clsd due to washouts and potholes. MIRL Rwy 05-23, PAPI Rwy 05, Rwy 23 and ODALS Rwy 23 opr continuously via photocell from dusk until 0300Z† then opr by pilot controlled lighting until dawn.

WEATHER DATA SOURCES: AWOS-3 118.725 (843) 538-3575.**COMMUNICATIONS:** CTAF/UNICOM 122.8Ⓡ **CHARLESTON APP/DEP CON** 120.7

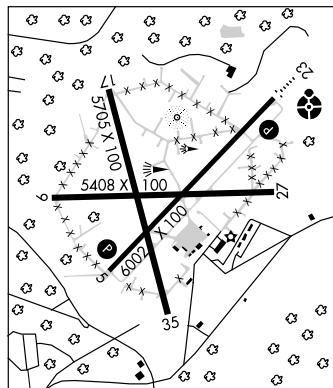
GCO 121.725 (CHARLESTON CLNC)

RADIO AIDS TO NAVIGATION: NOTAM FILE CHS.

CHARLESTON (H) VORTAC 113.5 CHS Chan 82 N32°53.66' W80°02.27' 278° 30.5 NM to fld. 39/05W.
HIWAS.

WALTERBORO NDB (MHW) 221 RBW N32°55.55' W80°38.41' at fld. NOTAM FILE AND.

ILS/DME 110.15 I-RBW Chan 38 Rwy 23. DME unusable byd 15 NM

**WILLIAMSBURG RGNL** (See KINGSTREE)**WINNSBORO** N34°18.87' W81°06.76' NOTAM FILE AND.**CHARLOTTE**

NDB (MHW) 414 FDW at Fairfield Co.

L-24J, 25D

WINNSBORO**FAIRFIELD CO** (FDW) 3 SW UTC-5(-4DT) N34°18.93' W81°06.53'**CHARLOTTE**

577 B S4 FUEL 100LL, JET A NOTAM FILE AND

H-9B, 126, L-24J, 25D

RWY 04-22: H5003X100 (ASPH) S-42, D-60 MIRL 0.3% up SW

IAP

RWY 04: PAPI (P2L)—GA 3.0° TCH 26'. Tree.

RWY 22: PAPI (P2L)—GA 3.0° TCH 30'. Tree.

AIRPORT REMARKS: Attended 1300-2300Z†. For FBO call (803) 635-3086. Rwy 04-22 and twy pavements cracking byd sealing. MIRL Rwy 04-22 preset on low ints and PAPI Rwy 04 and 22 opr dusk-0400Z†; to increase ints MIRL Rwy 04-22 ACTIVATE—CTAF. After 0400Z† ACTIVATE MIRL Rwy 04-22 and PAPI Rwy 04 and 22—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.075 (803) 712-2577.**COMMUNICATIONS:** CTAF/UNICOM 123.05Ⓡ **COLUMBIA APP/DEP CON** 133.4**RADIO AIDS TO NAVIGATION:** NOTAM FILE CAE.**COLUMBIA (H) VORTAC** 114.7 CAE Chan 94 N33°51.44' W81°03.24' 356° 27.6 NM to fld. 400/02W.**WINNSBORO NDB (MHW)** 414 FDW N34°18.87' W81°06.76' at fld. NOTAM FILE AND.**WOODWARD FLD** (See CAMDEN)

2010 U.S. & CANADIAN MILITARY AERIAL AIRCRAFT/PARACHUTE DEMONSTRATIONS

During calendar year 2010, the U.S. and Canadian Military Aerial Demonstration Teams (Thunderbirds, Blue Angels, Snowbirds, and Golden Knights) will be performing on the dates and locations listed below.

Pilots should expect Temporary Flight Restrictions (TFR) in accordance with 14 CFR Section 91.145, Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events. The dimensions and effective times of the TFRs may vary based upon the specific aerial demonstration event and will be issued via the U.S. NOTAM system. Pilots are strongly encouraged to check FDC NOTAMS to verify they have the most current information regarding these airspace restrictions.

The currently scheduled 2010 aerial demonstration locations, subject to change without notice, are:

DATE:	USAF Thunderbirds	USN Blue Angels	USA Golden Knights	Canadian Snowbirds
September 25-26	McConnell AFB, KS	MCAS Kaneohe Bay, HI		Chico, CA
October 1-3		MCAS Miramar, CA		MCAS Miramar, CA
2-3	Salinas, CA		MCAS Miramar, CA	
2-3			Jackson, MS	
9-10	Little Rock AFB, AR	San Francisco, CA	Little Rock, AFB, AR	Daytona Beach, FL
16-17	El Paso, TX	Dobbins AFB, GA	El Paso, TX	Atlanta, GA
23-24		NAS Jacksonville, FL	Washington, DC	
	Houston, TX			
30-31		Ft Worth Alliance, TX	Ft Worth Alliance, TX	
	Cocoa Beach, FL			
November 6-7	Lackland AFB, TX	Homestead ARB, FL	Lackland AFB, TX	
6-7			Homestead ARB, FL	
11-14			Ft Bragg, NC	
12-13		NAS Pensacola, FL		
13-14	Nellis AFB, NV			

Note: Dates and locations are scheduled "show dates" only and do not reflect arrival or practice date TFR periods that may precede the specific aerial demonstration events listed above. Again, pilots are strongly encouraged to check FDC NOTAMS to verify they have the most current information regarding any airspace restrictions.

NOISE ABATEMENT PROCEDURES COVINGTON, KY, CINCINNATI/NORTHERN KENTUCKY INTL AIRPORT (CVG)

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no further than 2 miles from the departure end of parallel runways, due to noise abatement restrictions.

AEROBATIC PRACTICE AREA Jack Edwards Airport (JKA) Gulf Shores, AL

Aerobatic flight activity will be conducted within a 2 NM radius of airport. Contact UNICOM for traffic and Anniston AFSS for specific times.

Fayette County (FYE), Somerville, Tennessee

Aerobatic training and practice is conducted in a 3500' symmetrical box located 500 feet west of Rwy 01-19 from the surface to 4500 MSL. If surface winds favor Rwy 01, right traffic for that rwy is in effect when area is active.

Pilots should use caution within this area. For further information contact Jackson AFSS on 1-901-423-1289.

CONTROLLED FIRING AREA Milan, Tennessee

Controlled Firing Area 5 NM radius 2500' & blo of MKL 030/018, eff. Mon-Fri 1200-2300Z†, Sat 1530-2230Z† Sun 1230-1700Z†.

Helicopter Activity Mosby Army Heliport, Dahlongega, GA Area

Occasional military helicopter activity within 15NM radius of Mosby AHP, (34°37'N/84°06'W) SFC to 3700 MSL. Activity includes: flight formations, personnel transport operations, cargo para-drop operations (below 500 AGL), medical evacuation and night vision device training. CTAF 227.2, 139.3, "Mountain Ranger 08" FM 34.10. Staff Duty Officer, Camp Frank D. Merrill, (706) 864-3367.

NIGHT VISION LIGHTS OUT OPERATIONS North Carolina, South Carolina

Military helicopter activity will be conducted for Night Vision Lights Out Training in North Carolina and South Carolina. Position lights will be extinguished or greatly reduced in intensity. The training is conducted in areas of low air traffic and not within four (4) miles of a public use airport. Training is IAW exemption to Far Part 91.

Boundaries: Beginning at Lat 35°41'N, Lon 78°30'W; to Lat 34°00'N, Lon 78°30'W; to Lat 34°00'N, Lon 80°00'W; to Lat 36°00'N, Lon 80°30'W; to point of beginning.

Times of use: Sunset to sunrise, daily.

Helicopter Activity Camp Blanding, Starke, Florida Area

Heavy military helicopter activity within 9 NM radius Blanding AAF, (29°57'7.84"N; 81°58'47.32"W). Surface to 1,500 feet. Activity includes: flight formations, personnel transport operations, sling loads, MED VAC, and night vision goggle training. Mon-Sat 1300-0500Z†, 1300-2000Z† Sun. Blanding Twr 123.0 by NOTAM, other times Range Control 123.0. (904) 533-3113/3352.

Cuban Flight Advisory (UNTIL FURTHER NOTICE)

The Federal Aviation Administration has been informed that an official Cuban government publication has issued a warning that Cuban Armed Forces will shoot down any aircraft that penetrates Cuban Airspace illegally and refuses to obey an order to land for inspection.

All pilots should take note: use extreme caution in the area of Cuban Airspace; adhere strictly to Cuban requirements for overflight of their territory.

LASER LIGHT DEMONSTRATIONS

Lake Buena Vista, Florida

A laser light demonstration will be conducted at Disney MGM Studios Theme Park, Lake Buena Vista, Florida (ORL 226 radial, 16.2 NM, LAT 28°21'42"N, LON 81°33'29"W), from 6:00 PM until 4:00 AM, until further advised. The beam may be injurious to eyes if viewed within 3,000 feet vertically and/or 12,000 feet laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

Lake Buena Vista, Florida

A laser light demonstration will be conducted at Epcot Center, Lake Buena Vista, Florida (ORL 226 radial, 16 NM, lat 28°22'N, long 81°32'W), from 6:00 pm until 4:00 am, until further advised. The beam may be injurious to eyes if viewed within 5000 feet vertically and/or 1 nautical mile laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

Miami, Florida

A permanent laser light demonstration will be conducted at Bayfront Park, Miami, Florida (VKZ 312 radial, 2.24 NM, Lat 25°46'41"N, Lon 80°11'12"W), from 8:00 p.m. until 12:00 a.m. until further advised. The laser light beam is not expected to elevate above the horizon from a 90 foot high platform. Laser light beam may be injurious to eyes if viewed within 4,400 feet laterally of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

Miami Beach, Florida

A permanent Laser Light Demonstration will be conducted at the Amnesia Club, located in Miami Beach, Florida, Lat 25°46"N/Long 80°08"W, nightly from dusk until 2 AM.

Laser Light beam may be injurious to eyes if viewed within 3,500 feet vertically and/or 2,000 feet laterally of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

Orlando, Florida

A laser light demonstration will be conducted at Sea World of Florida, Orlando, Florida (ORL 220 radial, 11 NM, Lat 27°24'N, Long 81°27'W), from 6:30 pm until 12:00 am, until further advised. The beam may be injurious to eyes if viewed within 5000 feet vertically and/or 6500 feet laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

A permanent laser light demonstration will be conducted at the Walt Disney World, Alien Encounter, Orlando, Florida, ORL VORTAC 239 radial, 15 nautical miles, from Dusk to 12:00 AM daily.

Laser light beam may be injurious to eyes if viewed within 2500 feet laterally and/or 2500 feet vertically of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

Decatur, Georgia

Laser light activity will be conducted at Agnes Scott College, Decatur, GA located at Lat 33° 45' 55"N/Long 84° 17' 39"W (ATL 041° radial, 11 NM), intermittent daily, at an angle of 90 degrees from the surface, projecting up to 14,036 feet, until further notice. Flash blindness or cockpit illumination may occur beyond these distances.

Clemson, South Carolina

A permanent laser light demonstration will be conducted at Clemson University, Clemson, South Carolina, ELW VORTAC 353R/18NM, from dusk until dawn, daily.

Laser light beam may be injurious to eyes if viewed within 3,500 feet laterally and/or 3,500 feet vertically of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

LASER LIGHT EXPERIMENT**Arecibo Observatory, Puerto Rico**

Location: 18°–20'–37"N 66°–45'–11"W

A Laser Light Beam Experiment will be conducted at the Arecibo Observatory, Puerto Rico (PSE 340/30), from one hour before sunset until one hour after sunrise twice weekly (by NOTAM).

Laser light beam may be injurious to eyes if viewed within 5,000 feet vertical and/or one nautical mile lateral of the light source. Cockpit illumination-flash blindness may occur beyond these distances.

MEMPHIS, TN**MEMPHIS INTL AIRPORT (MEM) NOISE ABATEMENT PROCEDURES**

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no later than 2 miles from the departure end of parallel runways, due to noise abatement restrictions.

NASHVILLE, TN**NASHVILLE INTL AIRPORT (BNA) NOISE ABATEMENT PROCEDURES**

Successive or simultaneous departures from Runways 20L and 20R are authorized, with course divergence beginning within 1 mile of the departure end of parallel runways, due to noise abatement restrictions.

CHARLOTTE, NC**CHARLOTTE/DOUGLAS INTL AIRPORT (CLT) NOISE ABATEMENT PROCEDURES**

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no later than 3 miles from the departure end of parallel runways, due to noise abatement restrictions.

AIRSPACE DELEGATED TO MACDILL AFB, FL

From 1100–2300 UTC (0700–1900 Local) daily, the following airspace that lies within the Tampa CLASS B Airspace will be delegated to MacDill AFB ATCT for airport traffic control services, and CLASS B Airspace services will not be provided within this portion of the CLASS B Airspace:

That airspace which extends from 1,200 feet MSL up to and including 1,600 feet MSL, south of a line located 1½ miles west of and parallel to MacDill AFB Runway 4/22 extended runway centerline, within a 4.5 NM radius from the geographical center of the MacDill AFB Airport.

Indianapolis ARTCC**NABB, INDIANA AREA****New Hope, London, Lexington Kentucky Area**

Indianapolis Center has installed frequencies in the southern portion of their airspace that require 720-channel radio capability.

Pilots should be aware that if they fly in the Nabb, IN, or the New Hope, London, and Lexington, KY, area without a 720-channel radio, ATC services will be greatly reduced. Traffic advisories, weather information, airport information, along with any other direct communication services will not be available.

While in this area of Indianapolis Center, pilots without 720-channel capability will, in most cases, monitor Flight Service Stations. There will be a noticeable delay in all clearance activity. Please ensure that ATC has adequate lead time in the event of problems or clearance requirements.

HELICOPTER ACTIVITY ORLANDO, FL AREA.

Heavy helicopter activity over the Disney attractions, Sea World, Universal Studios, Bay Hill and surrounding area. Surface to 1000' MSL. Operations 24 hours daily. Helicopters, transmitting and receiving on 123.02.

CAUTION–TETHERED AEROSTAT RADAR SYSTEM (TARS)

A TARS (a large helium-filled balloon) operates continuously up to 14,000 feet, except during inclement weather or when the system is down for maintenance, in R-2916 at Cudjoe Key, Florida. The tether is unmarked and is virtually impossible to see from only a few hundred feet. See the Miami Sectional Chart for location.

SPECIAL NORTH ATLANTIC, CARIBBEAN AND PACIFIC AREA COMMUNICATIONS

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area:	123.45 MHz
Caribbean area:	123.45 MHz
Pacific area:	123.45 MHz

ST. PETERSBURG, FLORIDA

Pilots planning to overfly the St. Petersburg VORTAC (PIE) below 13,000 feet MSL should file via the Lakeland VORTAC (LAL) between 1100 and 2300 UTC.

GEORGIA

Atlanta Tower: Low altitude airway structure in proximity of the Hartsfield-Jackson Atlanta Intl Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid heavy concentration of high performance and wide-bodied aircraft, pilots should file for airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local.

U.S. SPECIAL CUSTOMS REQUIREMENT

Air Commerce Regulations of the Treasury Department's Customs Service require all private aircraft arriving in the U.S. from a foreign place in the Western Hemisphere, (a) south of 33 degrees north latitude which cross into the U.S. over a point on the U.S./Mexican border between 97 and 120 degrees west longitude, or (b) south of 31 degrees north latitude which enter the U.S. via the Gulf of Mexico and Atlantic Coasts, to provide notice of intended arrival to the Customs Service at least one hour prior to crossing the U.S./Mexican border or the U.S. coastline. This notice may be provided by: (1) radio through an appropriate FAA Flight Service Station, (2) normal FAA flight plan notification procedures (a flight plan filed in Mexico does not meet this requirement due to unreliable relay of data), or (3) directly to the District Director of Customs or other Customs officer at place of first intended landing. Unless an exemption has been granted by Customs, private aircraft are required to make first landing in the U.S. at one of the following designated airports nearest to the point of border or coastline crossing:

Brownsville/South Padre Island International, Corpus Christi International, Del Rio International, El Paso International, Laredo International, Maverick County Memorial International, McAllen Miller International, Presidio-Lely International, Southwest Texas Regional, or William P. Hobby Airport in Texas; Calexico International, or Brown Field Municipal in California; Bisbee Douglas International, Nogales International, Tuscon International, or Yuma MCAS/Yuma International in Arizona; Las Cruces Intl in New Mexico; Lakefront or Louis Armstrong New Orleans Intl in Louisiana; Fort Lauderdale Executive, Fort Lauderdale-Hollywood International, Key West International, Miami International, Opa-Locka Executive Airport, Palm Beach International, St. Lucie County International, or Tampa International in Florida.

MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

CIVIL USE OF MILITARY FIELDS:

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission. Army Installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations prior permission should be requested at least 30 days prior to first intended landing. An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the nearest U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

AIRCRAFT RESTRICTIONS BOCA RATON AIRPORT (BCT), FLORIDA

On initial contact, pilot should advise local Air Traffic Control Tower or announce on local Unicom frequency if aircraft has greater than 79 feet wingspan and/or greater than 140 knot approach speed. Aircraft with wingspan greater than 79 feet and/or an approach speed greater than 140 knots are prohibited from using Runway 5/23 while any aircraft occupies Taxiway P. Aircraft with a wingspan greater than 79 feet must remain clear of Taxiway P while any aircraft are approaching or departing Runway 5/23.

AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

FEDERAL AVIATION REGULATION 91.713

The provisions of FAR 91.713 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that the flight plan be filed with appropriate authorities at least five days prior to the proposed departure time. Route changes while en route will normally not be authorized. The procedures set forth herein do not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service.

CAUTION—HIGH DENSITY AIR TRAFFIC AREA

Heavy helicopter and seaplane traffic exists over the Gulf of Mexico and adjacent onshore areas. Thousands of operations per month occur in this area in support of oil drilling and exploration.

Itinerant pilots traversing this area should familiarize themselves with offshore operating practices and frequencies through contact with the pertinent Flight Standards District Office (FSDO) or Flight Service Station.

CONTINUOUS POWER FACILITIES

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (HIRL)
9. Taxiway Lighting
10. Apron Light (Perimeter Only)

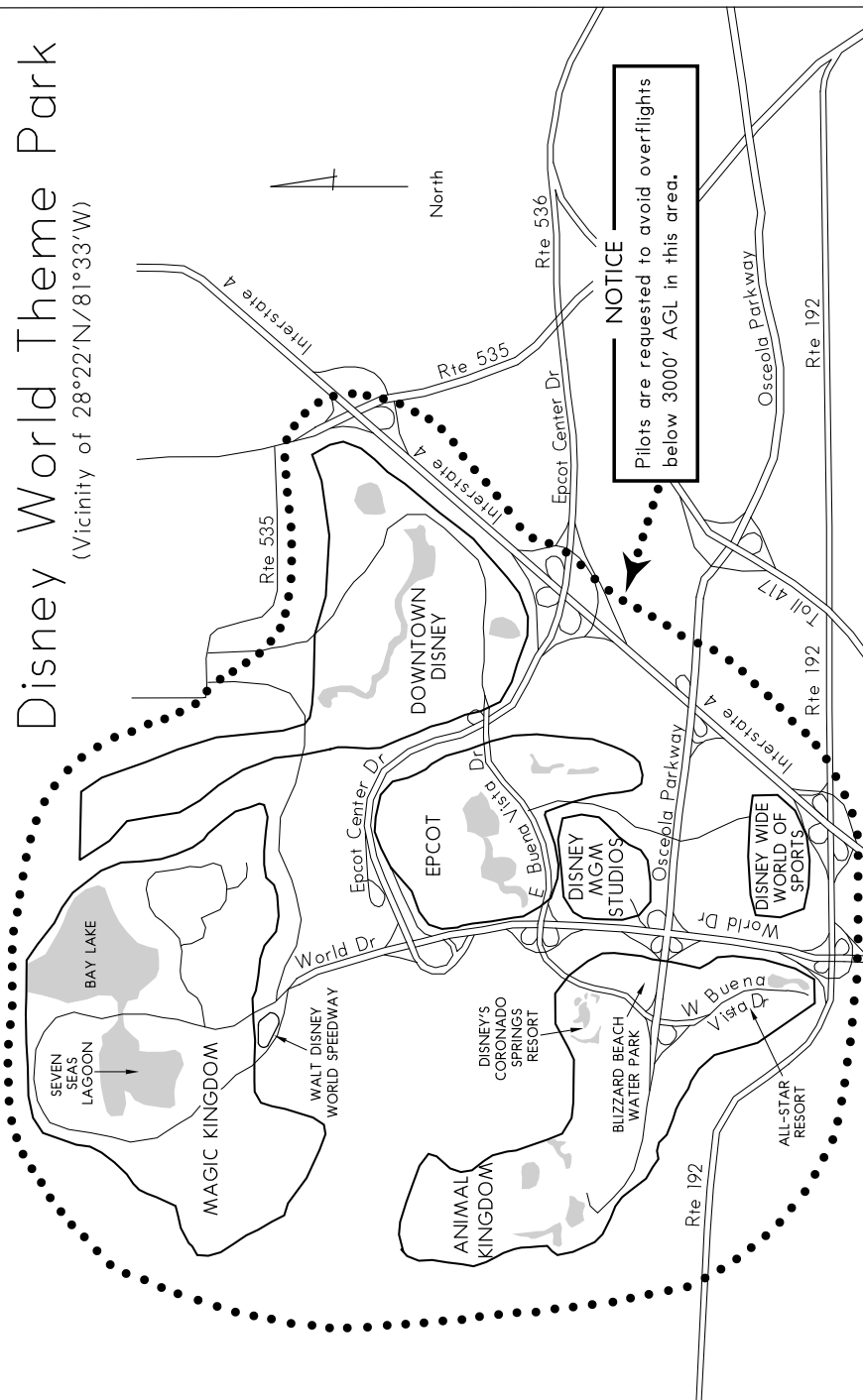
The following have been designated "Continuous Power Airports," and have independent back up capability for the equipment installed.

Airport/Ident	Runway No.	Airport/Ident	Runway No.
Albuquerque, NM (ABQ)	08	Milwaukee, WI (MKE)	01L
Anchorage, AK (ANC)	07R	Minneapolis, MN (MSP)	30L
Andrews AFB, MD (ADW)	01L	Nashville, TN (BNA)	02L
Atlanta, GA (ATL)	09R	New Orleans, LA (MSY)	10
Baltimore, MD (BWI)	10	New York, NY (JFK)	04R
Bismarck, ND (BIS)	31	New York, NY (LGA)	22
Boise, ID (BOI)	10R	Newark, NJ (EWR)	04R
Boston, MA (BOS)	04R	Oklahoma City, OK (OKC)	35R
Charlotte, NC (CLT)	36L	Omaha, NE (OMA)	14R
Chicago, IL (ORD)	10	Ontario, CA (ONT)	26L
Cincinnati, OH (CVG)	36C	Philadelphia, PA (PHL)	09R
Cleveland, OH (CLE)	06R	Phoenix, AZ (PHX)	08
Dallas/Fort Worth, TX (DFW)	17C	Pittsburgh, PA (PIT)	10L
Denver, CO (DEN)	35R	Reno, NV (RNO)	16R
Des Moines, IA (DSM)	31	Salt Lake City, UT (SLC)	34L
Detroit, MI (DTW)	03R	San Antonio, TX (SAT)	12R
El Paso, TX (ELP)	22	San Diego, CA (SAN)	09
Fairbanks, AK (FAI)	01L	San Francisco, CA (SFO)	28R
Great Falls, MT (GTF)	03	San Juan, PR (SJU)	08
Honolulu, HI (HNL)	08L	Seattle, WA (SEA)	16C
Houston, TX (IAH)	26L	St. Louis, MO (STL)	30R
Indianapolis, IN (IND)	05L	Tampa, FL (TPA)	36L
Jacksonville, FL (JAX)	07	Tulsa, OK (TUL)	36R
Kansas City, MO (MCI)	19R	Washington, DC (DCA)	01
Los Angeles, CA (LAX)	24R	Washington, DC (IAD)	01R
Memphis, TN (MEM)	36L	Wichita, KS (ICT)	01L
Miami, FL (MIA)	08R		

NOTE—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

Disney World Theme Park

(Vicinity of 28°22'N/81°33'W)



DISNEY WORLD THEME PARK**NOTICE**

Pursuant to Public Law 108–199, Section 521, aircraft flight operations are prohibited at and below 3,000 feet AGL within a 3 nautical mile radius of the Disney World Theme Park (282445N/081342W or the Orlando (ORL) VORTAC 238 degree radial at 14.8 nautical miles). This restriction does not apply to: (A) those aircraft authorized by ATC for operational or safety purposes, including aircraft arriving or departing from an airport using standard air traffic procedures; (B) Department of Defense, law enforcement, or aeromedical flight operations that are in contact with ATC; Those who meet any of the following criteria may apply for a waiver to these restrictions: (A) for operational purposes of the venue, including the transportation of equipment or officials of the governing body; (b) for safety and security purposes of the venue.

Hilton Head Island Airport VFR Arrivals Elevation 19'

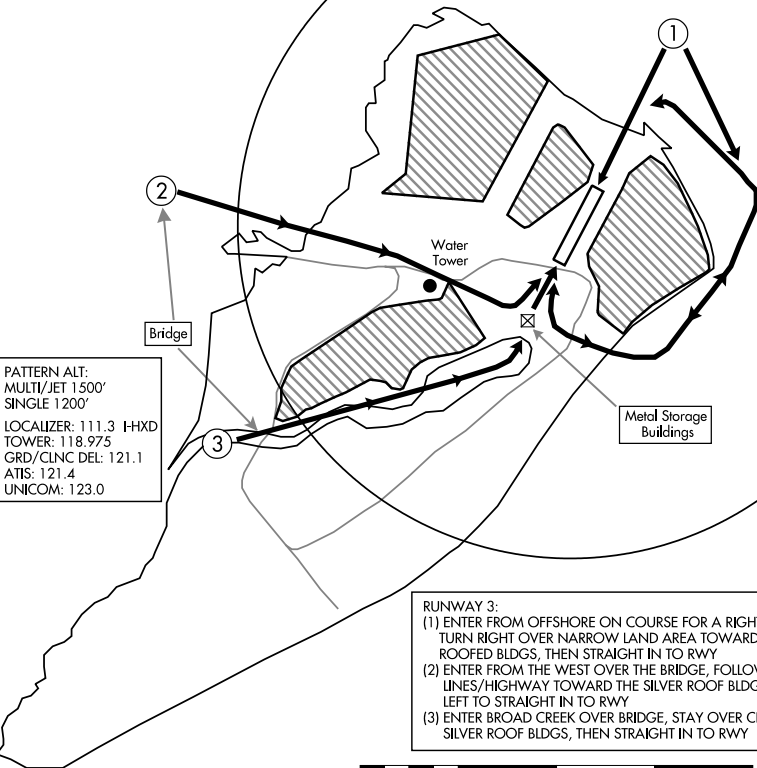
RUNWAY 21:

(1) INTERCEPT LOCALIZER NE OF ISLAND, FLY STRAIGHT IN TO RWY
IF NECESSARY TO CIRCLE, FLY OVER AIRPORT TO SILVER ROOF
BLDGS THEN TURN LEFT TO DOWNWIND OVER THE WATER
NOTE: APPROACHING RWY 21 FROM THE OTHER AREAS, USE THE
APPROPRIATE PROCEDURE FOR RWY 3 AND ASSUME LEFT
DOWNWIND POSITION OVER WATER



Noise Sensitive
Areas

3.9 Nautical Miles



RUNWAY 3:

(1) ENTER FROM OFFSHORE ON COURSE FOR A RIGHT DOWNWIND.
TURN RIGHT OVER NARROW LAND AREA TOWARDS SILVER
ROOFED BLDGS, THEN STRAIGHT IN TO RWY
(2) ENTER FROM THE WEST OVER THE BRIDGE, FOLLOW THE POWER
LINES/HIGHWAY TOWARD THE SILVER ROOF BLDGS AND THEN
LEFT TO STRAIGHT IN TO RWY
(3) ENTER BROAD CREEK OVER BRIDGE, STAY OVER CREEK TOWARD
SILVER ROOF BLDGS, THEN STRAIGHT IN TO RWY

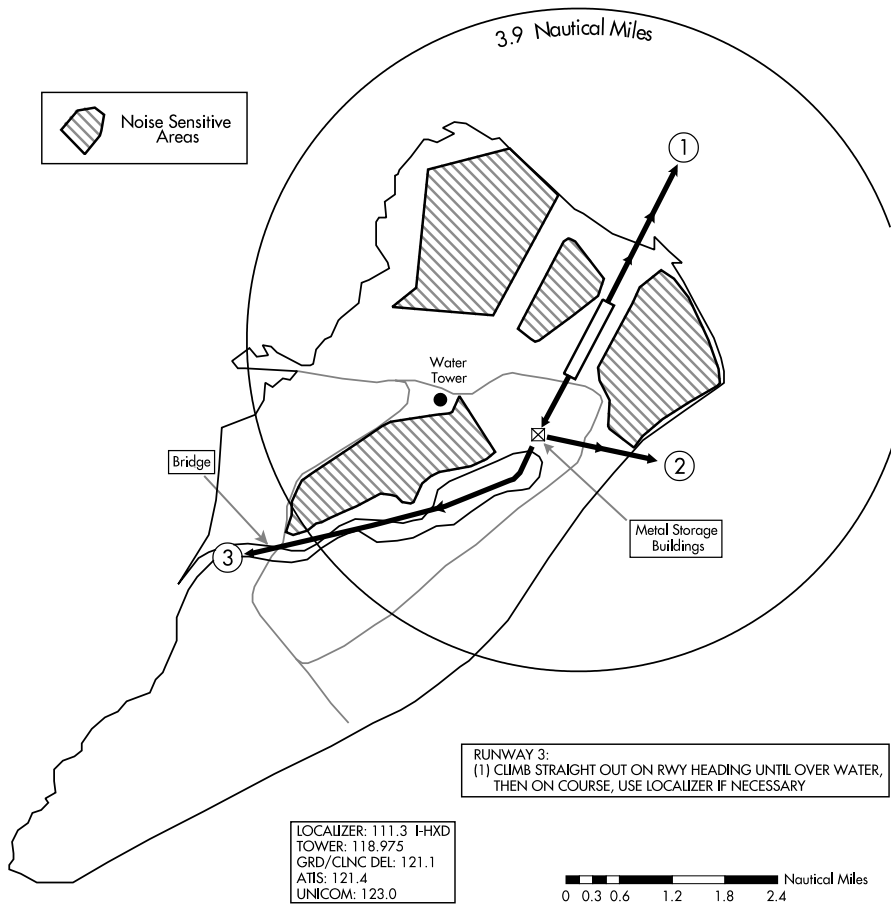
0 0.5 1 2 3 4 Nautical Miles

Hilton Head Island
Airport VFR Departures
Elevation 19'

RUNWAY 21:
FLY RUNWAY HEADING UNTIL OVER THE SILVERROOF BLDGS, THEN:
(2) TURN LEFT TO PROCEED OVER THE SHORELINE TO DEPART OVER WATER
(3) CONTINUE OVER BROAD CREEK TO THE BRIDGE BEFORE TURNING ON COURSE



Noise Sensitive
Areas



BOWMAN FIELD

LOUISVILLE, KY

TERMINAL AREA GRAPHIC NOTICE

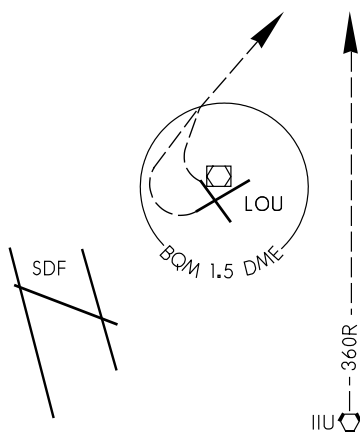
(Not to be used for navigation)

Bowman Airport Runway 24 and Runway 33 VFR Departure Procedure.

"SENECA DEPARTURE"

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.

ATIS
118.275
LOUISVILLE APP CON
132.075
BOWMAN TOWER★
119.5
GND CON
121.8
CLNC DEL
118.9



Remaining within $1\frac{1}{2}$ miles from Bowman VOR (BQM), turn right heading 045, maintaining VFR at or below 2500 feet. Expect IFR activation and climb upon crossing the IIU 360 radial.

WEATHER MINIMUMS: Ceiling 3000 and visibility 3 miles.

NOTE: Receipt of a clearance to climb above 2500 feet constitutes activation of IFR clearance upon leaving 2500 feet.

HOLLYWOOD/NORTH PERRY (HWO)**HOLLYWOOD, FL**

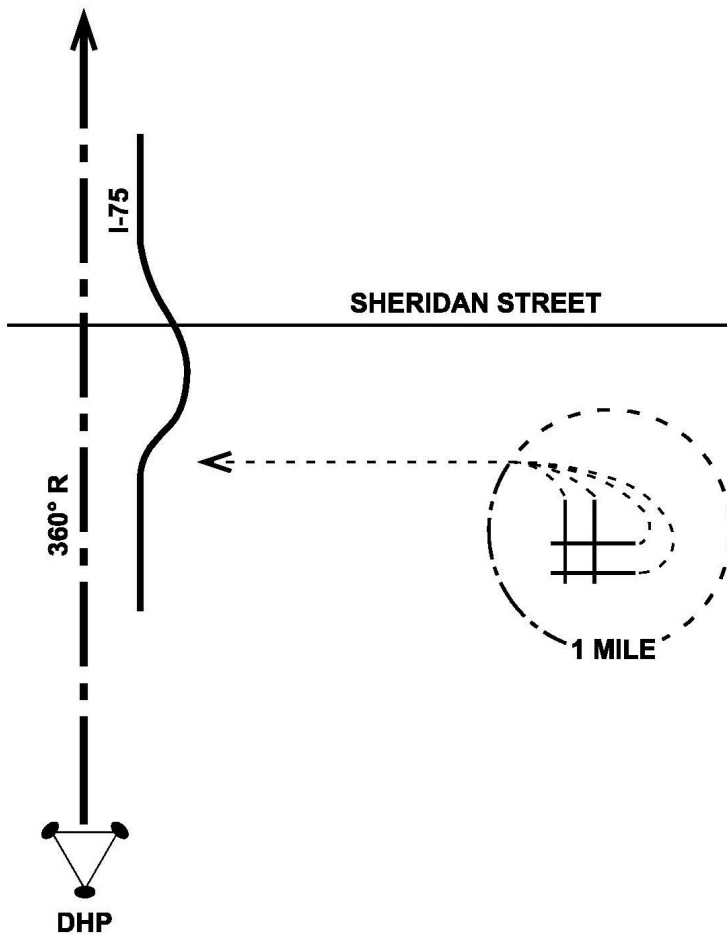
TERMINAL AREA GRAPHIC NOTICE

(Not to be used for navigation)

Hollywood/North Perry Airport Runway 9L, 9R, 36L and 36R VFR Departure Procedure.

"SHERIDAN DEPARTURE"

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.



ATIS 135.475

MIAMI APPROACH CONTROL 128.6

NORTH PERRY TOWER 132.1

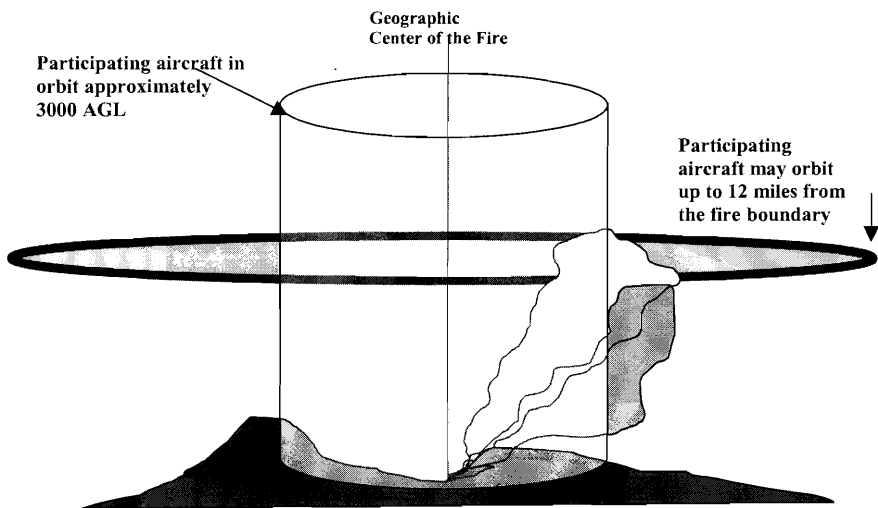
GROUND CONTROL 120.45

Remain within 1 mile from HWO airport, if departing north or east turn left to heading 260. Remain south of Sheridan Street VFR at or below 1500. Expect IFR activation and climb crossing I-75 (5 miles west of HWO) or the DHP 360 radial.

WEATHER MINIMUMS: Ceiling 2000 and visibility 3 miles.

NOTE: Receipt of a clearance to climb above 1500 constitutes activation of IFR clearance.

FIREFIGHTING TRAFFIC AREAS



Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information.

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, Patterns, and/or Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

DESTIN—FT WALTON BEACH, FLORIDA VALPARAISO TERMINAL AREA

Part 93, Subpart F, prescribes that Valparaiso, Florida, Terminal Area, and the special air traffic rules for operating aircraft within specific corridor.

— North-South Corridor.

Before operating within the corridor, obtain a clearance from the Eglin Radar Control Facility or an appropriate FAA ATC facility, and maintain two-way radio communication with the Eglin Radar Control Facility while within the corridor.

— East-West Corridor.

Before operating within the corridor, establish two-way radio communications with Eglin Radar Control Facility or an appropriate FAA ATC facility for an ATC advisory concerning operations being conducted therein; and maintain two-way radio communications with the Eglin Radar Control Facility while within the corridor. For Destin/Eglin AFB FL Part 93 Operations details, see FAA Safety.gov Knowledge Course at: http://faasafety.gov/gslac/ALC/course_catalog.aspx.

OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93-1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at <http://www.faa.gov>. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e-CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll-free telephone number for accessing e-CVRS is 1-800-875-9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll-free areas may access e-CVRS by calling the toll number of 703-707-0568. The Internet web address for accessing the e-CVRS is <http://www.fly.faa.gov/ecvrs>. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904-4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high-density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904-4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

NOTE: Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e-CVRS.

FSS TELEPHONE NUMBERS

Flight Service Station (FSS) facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a network of large FSS facilities and a few select remote facilities some of which operate part-time. Because of the interconnectivity between the facilities, all FSS services including radio frequencies are available continuously using published data.

Telephone Information Briefing Service (TIBS) is a FSS service that provides continuous recordings of meteorological and/or aeronautical information. A touch-tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings 1-800-WX-BRIEF (1-800-992-7433)

OTHER FSS TELEPHONE NUMBERS (except in Alaska)

TIBS (see description above) 1-877-4TIBS-WX (1-877-484-2799)

Clearance Delivery Only 1-888-766-8267

Lifeguard Flights Only 1-877-LIF-GRD3 (1-877-543-4733)

Flights within DC SFRA & FRZ * 1-866-225-7410

* District of Columbia Special Flight Rules Area & Flight Restricted Zone

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

TAF KPIT 091730Z 091818 15005KT 5SM HZ.FEW020 WS010/31022KT
FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA
OVC008CB
FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR
FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB
18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
TAF	Message type: <u>TAF</u> -routine or <u>TAF AMD</u> -amended forecast, <u>METAR</u> -hourly, <u>SPECI</u> -special or <u>TESTM</u> -non-commissioned ASOS report	METAR
KPIT	ICAO location indicator	KPIT
091730Z	Issuance time: ALL times in UTC " <u>Z</u> ", 2-digit date, 4-digit time	091955Z
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times In U.S. METAR : <u>COR</u> rected ob; or <u>AUTO</u> mated ob for automated report with no human intervention; omitted when observer logs on	COR
15005KT	Wind: 3 digit true-north direction, nearest 10 degrees (or <u>VariaBle</u>); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>Gust</u> and maximum speed; 00000KT for calm; for METAR , if direction varies 60 degrees or more, <u>Variability</u> appended, e.g. 180 <u>V</u> 260	22015G25KT
5SM	Prevailing visibility: in U.S., <u>Statute Miles</u> & fractions; above 6 miles in TAF <u>Plus</u> 6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction) Runway Visual Range: <u>R</u> ; 2-digit runway designator <u>Left</u> , <u>Center</u> , or <u>Right</u> as needed; <u>"I"</u> ; <u>Minus</u> or <u>Plus</u> in U.S., 4-digit value, <u>FeeT</u> in U.S., (usually meters elsewhere); 4-digit value <u>Variability</u> 4-digit value (and tendency <u>Down</u> , <u>Up</u> or <u>No change</u>)	3/4SM R28L/2600FT
HZ	Significant present, forecast and recent weather: see table (on back)	TSRA
FEW020	Cloud amount, height and type: <u>SKY</u> <u>Clear</u> 0/8, <u>FEW</u> >0/8-2/8, <u>SCa</u> tered 3/8-4/8, <u>BroKeN</u> 5/8-7/8, <u>OVerCast</u> 8/8; 3-digit height in hundreds of ft; <u>Towering CU</u> mulus or <u>CumulonimBus</u> in METAR ; in TAF , only <u>CB</u> . <u>Vertical Visibility</u> for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In auto-mated METAR reports only, <u>CLeaR</u> for "clear below 12,000 feet" Temperature: degrees Celsius; first 2 digits, temperature <u>"I"</u> last 2 digits, dew-point temperature; <u>Minus</u> for below zero, e.g., M06 Altimeter setting: indicator and 4 digits; in U.S., <u>A</u> -inches and hundredths; (<u>Q</u> -hectoPascals, e.g., Q1013)	OVC010CB 18/16 A2992

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
WS010/31022KT	In U.S. TAF , non-convective low-level ($\leq 2,000$ ft) <u>Wind Shear</u> ; 3-digit height (hundreds of ft); <u>"/";</u> 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, <u>KT</u> In METAR , <u>ReMark</u> indicator & remarks. For example: <u>Sea-Level Pressure</u> in hectoPascals & tenths, as shown: 1004.5 hPa; <u>Temp/</u> dew-point in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	RMK SLP045 T01820159
FM1930	<u>From</u> and 2-digit hour and 2-digit minute beginning time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
TEMPO 2022	<u>TEMPO</u> rary: changes expected for < 1 hour and in total, < half of 2-digit hour beginning and 2-digit hour ending time period	
PROB40 0407	<u>PROB</u> ability and 2-digit percent (30 or 40): probable condition during 2-digit hour beginning and 2-digit hour ending time period	
BECMG 1315	<u>BECM</u> ing: change expected during 2-digit hour beginning and 2-digit hour ending time period	

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

QUALIFIER

Intensity or Proximity

- Light "no sign" Moderate + Heavy

VC Vicinity: but not at aerodrome; in U.S. **METAR**, between 5 and 10SM of the point(s) of observation; in U.S. **TAF**, 5 to 10SM from center of runway complex (elsewhere within 8000m)

Descriptor

MI Shallow	BC Patches	PR Partial	TS Thunderstorm
BL Blowing	SH Showers	DR Drifting	FZ Freezing

WEATHER PHENOMENA

Precipitation

DZ Drizzle	RA Rain	SN Snow	SG Snow grains
IC Ice crystals	PL Ice pellets	GR Hail	GS Small hail/snow pellets

UP Unknown precipitation in automated observations

Obscuration

BR Mist ($\geq 5/8$ SM)	FG Fog ($< 5/8$ SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- Explanations in parentheses "()" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS **TAFs** exclude turbulence, icing & temperature forecasts; NWS **METARs** exclude trend fcsts
- Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility ≥ 10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

UNITED STATES DEPARTMENT OF COMMERCE

NOAA/PA 96052

National Oceanic and Atmospheric Administration—National Weather Service

KEY AIR TRAFFIC FACILITIES

Air Traffic Control System Command Center

Main Number.....703-904-4400

RGNL AIR TRAFFIC DIVISIONS

REGION	TELEPHONE
Alaskan	907-271-5464
Central	816-329-2500
Eastern	718-553-4502
Great Lakes	847-294-7202
New England	781-238-7500
Northwest Mountain	425-227-2500
Southern	404-305-5500
Southwest	817-222-5500
Western Pacific	310-725-6500

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque	817-222-5006	7:30 a.m.-4:00 p.m.	505-856-4300
Anchorage	907-271-5936	7:30 a.m.-4:00 p.m.	907-269-1137
Atlanta	404-305-5180	7:30 a.m.-5:00 p.m.	770-210-7601
Boston	617-238-7001	7:30 a.m.-4:00 p.m.	603-879-6633
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	630-906-8221
Cleveland	847-294-8400	8:00 a.m.-4:00 p.m.	440-774-0310
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-651-4100
Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	817-858-7300
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-5300
Indianapolis	847-294-8400	8:00 a.m.-4:00 p.m.	317-247-2231
Jacksonville	404-305-5180	8:00 a.m.-4:30 p.m.	904-549-1501
Kansas City	816-329-3000	7:30 a.m.-4:00 p.m.	913-254-8500
Los Angeles	661-265-8200	7:30 a.m.-4:00 p.m.	661-265-8200
Memphis	404-305-5180	7:30 a.m.-4:00 p.m.	901-368-8103
Miami	404-305-5180	7:00 a.m.-3:30 p.m.	305-716-1500
Minneapolis	847-294-8400	8:00 a.m.-4:00 p.m.	651-463-5580
New York	718-995-5426	8:00 a.m.-4:40 p.m.	516-468-1001
Oakland	310-725-3300	6:30 a.m.-3:00 p.m.	510-745-3331
Salt Lake City	425-227-1389	7:30 a.m.-4:00 p.m.	801-320-2500
Seattle	425-227-1389	7:30 a.m.-4:00 p.m.	253-351-3500
Washington	718-995-5426	8:00 a.m.-4:30 p.m.	703-771-3401

MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONs)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Chicago	847-294-8400	8:00 a.m.-4:00 p.m.	847-608-5509
Dallas/Ft. Worth	817-222-5006	7:30 a.m.-4:00 p.m.	972-615-2500
Denver	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1500
Houston	817-222-5006	7:30 a.m.-4:00 p.m.	281-230-8400
New York	718-995-5426	8:00 a.m.-4:30 p.m.	516-683-2901
Northern CA	310-725-3300	7:00 a.m.-3:30 p.m.	916-366-4001
Potomac	718-995-5426	8:00 a.m.-4:30 p.m.	540-349-7500
Southern CA	310-725-3300	7:30 a.m.-4:00 p.m.	858-537-5800

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

KEY AIR TRAFFIC FACILITIES **DAILY NAS REPORTABLE AIRPORTS**

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817-222-5006	8:00 a.m.-5:00 p.m.	505-842-4366
Andrews AFB, MD	718-995-5426	8:00 a.m.-4:30 p.m.	301-735-2380
Baltimore/Washington Intl Thurgood Marshall, MD	718-995-5426	8:00 a.m.-4:30 p.m.	410-962-3555
Boston Logan Intl, MA	781-238-7001	7:30 a.m.-4:00 p.m.	617-455-3100
Bradley Intl, CT	617-238-7001	7:30 a.m.-4:00 p.m.	203-627-3428
Burbank/Bob Hope, CA	310-725-3300	7:00 a.m.-5:30 p.m.	818-567-4806
Charlotte Douglas Intl, NC	404-305-5180	8:00 a.m.-4:30 p.m.	704-344-6487
Chicago Midway, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-884-3670
Chicago O'Hare Intl, IL	847-294-8400	8:00 a.m.-4:00 p.m.	773-601-7600
Cleveland Hopkins Intl, OH	847-294-8400	8:00 a.m.-4:00 p.m.	216-898-2020
Covington/Cincinnati, OH	708-294-7401	8:00 a.m.-4:30 p.m.	606-767-1006
Dallas/Ft. Worth Intl, TX	817-222-5006	8:30 a.m.-5:00 p.m.	972-615-2531
Dayton Cox Intl, OH	847-294-8400	7:30 a.m.-4:00 p.m.	937-454-7300
Denver Intl, CO	425-227-1389	7:30 a.m.-4:00 p.m.	303-342-1600
Detroit Metro, MI	847-294-8400	8:00 a.m.-4:00 p.m.	734-955-5000
Fairbanks Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-474-0050
Fort Lauderdale Intl, FL	404-305-5180	7:00 a.m.-3:30 p.m.	305-356-7932
George Bush Intercontinental/Houston, TX	817-222-5006	7:30 a.m.-4:00 p.m.	713-230-8400
Hartsfield-Jackson Atlanta Intl, GA	404-305-5180	7:00 a.m.-3:30 p.m.	404-669-1200
Honolulu Intl, HI	310-725-3300	7:30 a.m.-4:00 p.m.	808-840-6100
Houston Hobby, TX	817-222-5006	8:00 a.m.-5:00 p.m.	713-847-1400
Indianapolis Intl, IN	847-294-8400	8:00 a.m.-4:00 p.m.	317-484-6600
Kahului/Maui, HI	310-725-3300	7:30 a.m.-4:00 p.m.	808-877-0725
Kansas City Intl, MO	816-329-3000	7:30 a.m.-4:00 p.m.	816-329-2700
Las Vegas McCarran, NV	310-725-3300	7:30 a.m.-4:00 p.m.	702-262-5978
Los Angeles Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	310-342-4900
Louis Armstrong New Orleans Intl, LA	817-222-5006	7:00 a.m.-4:30 p.m.	504-471-4300
Memphis Intl, TN	404-305-5180	7:30 a.m.-4:00 p.m.	901-322-3350
Miami Intl, FL	404-305-5180	7:00 a.m.-4:00 p.m.	305-869-5400
Minneapolis/St. Paul, MN	847-294-8400	8:00 a.m.-4:00p.m.	612-713-4000
Nashville Intl, TN	404-305-5180	7:00 a.m.-3:30 p.m.	615-781-5460
New York Kennedy Intl, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-656-0335
New York La Guardia, NY	718-995-5426	8:00 a.m.-4:30 p.m.	718-335-5461
Newark Liberty Intl, NJ	718-995-5426	7:30 a.m.-4:00 p.m.	973-565-5000
Norman Y. Mineta San Jose Intl, CA	310-725-3300	7:30 a.m.-4:00 p.m.	408-982-0750
Ontario Intl, CA	310-725-3300	7:30 a.m.-4:00 p.m.	909-983-7518
Orlando Intl, FL	404-305-5180	7:30 a.m.-5:00 p.m.	407-850-7000
Philadelphia Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	215-492-4100
Phoenix Sky Harbor Intl, AZ	310-725-3300	7:30 a.m.-4:00 p.m.	602-379-4226
Pittsburgh Intl, PA	718-995-5426	8:00 a.m.-4:30 p.m.	412-269-9237
Portland Intl, OR	425-227-1389	7:30 a.m.-4:00 p.m.	503-493-7500
Raleigh-Durham, NC	404-305-5180	8:00 a.m.-4:30 p.m.	919-840-5544
Ronald Reagan Washington National, DC	718-995-5426	8:00 a.m.-4:30 p.m.	703-413-1535
Salt Lake City, UT	425-227-1389	7:30 a.m.-4:00 p.m.	801-325-9600
San Antonio Intl, TX	817-222-5006	8:00 a.m.-4:30 p.m.	210-805-5507
San Diego Lindbergh Intl, CA	310-725-3300	8:00 a.m.-4:30 p.m.	619-299-0677
San Francisco Intl, CA	310-725-3300	7:00 a.m.-3:30 p.m.	650-876-2883
San Juan Intl, PR	404-305-5180	7:30 a.m.-5:00 p.m.	809-253-8663
Seattle-Tacoma Intl, WA	425-227-1389	7:30 a.m.-4:00 p.m.	206-768-2900
St. Louis Lambert, MO	816-329-3000	7:30 a.m.-4:00 p.m.	314-890-1000
Tampa Intl, FL	404-305-5180	7:30 a.m.-4:00 p.m.	813-371-7700
Ted Stevens Anchorage Intl, AK	907-271-5936	7:30 a.m.-4:00 p.m.	907-271-2700
Teterboro, NJ	718-995-5426	8:00 a.m.-4:30 p.m.	201-288-1889
Washington Dulles Intl, DC	718-995-5426	8:00 a.m.-4:30 p.m.	571-323-6372
West Palm Beach, FL	404-305-5180	8:00 a.m.-4:30 p.m.	561-683-1867
Westchester Co, NY	718-995-5426	8:00 a.m.-4:30 p.m.	914-948-6520

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

Air Route Traffic Control Center frequencies and their remoted transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

Ⓡ ATLANTA CENTER

H-6-9-10-12, L-18-22-24-25-26-36, A-1
(KZTL)

Albemarle - 133.15
 Anniston - 134.95
 Athens - **127.5** 127.5 124.45 **120.425**
 Atlanta A - **135.0** 135.0
 Augusta - 128.1
 Birmingham - **128.725** 127.3
 Chattanooga - **133.175** 132.05 **126.675** **124.875**
 Columbus - **125.575** 120.45
 Foothills - **124.375**
 Gadsden - 133.8
 Glade Springs - 127.85
 Greensboro - 128.8 **124.425**
 Hampton - **127.125** **119.375**
 Hickory - 134.55 **132.975** 125.15
 Hinch Mountain - 133.6 **132.675** **125.925**
 Huntsville - **126.825**
 Jonesville - **125.025**
 Macon - 134.5 **126.425** 123.95
 Millen - 135.55
 Monroeville - 118.55
 Montgomery - **134.6** **128.025** **125.875** 120.55
 Mount Oglethorpe - 134.8 133.1 121.35 **127.05** 127.05
 Newport - **134.075** 127.55
 Owing - 135.35 **125.625** **123.725**
 Sandersville - **124.325**
 Sugarloaf Mountain - **121.5** 121.5
 Tri City - 127.85 **126.775** **120.725**
 Uniontown - 132.25

Ⓡ HOUSTON CENTER - 134.35

H-6-7-8-9, L-17-18-19-20-21-22
(KZHU)

Arr-Dep US - 135.77 134.95 **133.75** 133.4 **132.65** 132.4 128.3 **127.8** 125.75 120.35
 Mobile - 127.65 **125.775**

Ⓡ INDIANAPOLIS CENTER - 133.425 **132.775** **128.375** 125.55

H-5-9-10-12, L-16-25-26-27-29
(KZID)

124.525 119.55
 Evansville - **132.525** 128.3
 Livingston - **134.675** **126.925**
 London 2 - 126.57 124.625 121.325
 Lynch - 126.575
 New Hope - 124.625 121.175
 Portsmouth - 124.225 **120.275**
 Tri City - **124.575**
 Winchester - **128.22** 126.375 **123.775**

Ⓡ JACKSONVILLE CENTER

H-6-7-8-9-12, L-18-21-22-24-25-35-36, A-1
(KZJX)

Arr-Dep US-South Atlantic Control N of 31°30' — 135.05 S of 31°30'N 134.85
 Albany - 134.45 125.75
 Alma - **135.975** **133.3** 132.3
 Charleston - **135.05** **133.625** **132.475** 127.95 **124.075**
 Columbia - **127.875** 124.7
 Crestview - 134.15 **124.475** 120.2
 Daytona Beach - 134.0
 Dothan - 134.3
 Eglin - 132.1
 Florence - 134.35 133.45
 Gainesville - **135.65** 134.4 124.75
 Glynco - 126.75
 Jacksonville - **134.85** 126.35
 Lake City - 125.375
 Lowell - 135.75 133.325 **125.175**
 Millen - 132.5
 Myrtle Beach - **135.05** 128.7

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Panama City – 119.1
 Perry Foley – 127.8
 St. Augustine – **134.575 132.825 127.475 126.35**
 Savannah – **132.425 126.125** 120.85
 Tallahassee – 135.325 128.625 **128.075 125.05**
 Valdosta – 133.7 125.95

® MEMPHIS CENTER — 127.975 124.025
H-5-6-9, L-15-16-17-18-22-25-26**(KZME)**

Columbus – **134.775 133.125** 127.1
 Fayetteville – **132.55**
 Graham – 125.85 **124.275**
 Greenville – **133.075 124.925**
 Greenwood – 127.425
 Harrison – **133.025**
 Huntsville – 120.8
 Little Rock – **132.425 125.475**
 McKellar – 134.65 127.975 **126.45** 124.35
 Memphis – **135.225 118.625** 133.125
 Meridian – **128.275**
 Nashville – 133.85 **124.125 118.875**
 Nashville/Joelton 132.1
 Paducah – 133.65
 Shelbyville – 126.75
 South Fulton – 128.05 **127.975 122.275**
 Tupelo – **135.9** 135.9 134.4 **127.375 120.025**
 Walnut – **135.225 132.375**

® MIAMI CENTER
H-8, L-21-22-23-24, A-1**(KZMA)**

Avon Park – 134.55 127.2 **126.525**
 Fort Myers – 134.75 133.275
 Grand Bahama Island – 134.2
 Grand Turk – **135.2** 132.3
 Key West – 133.5 **132.2** 132.2 **124.7** 124.7
 Melbourne – **135.075 128.65** 124.1 **119.825**
 Miami – **132.95** 133.85 133.2 133.95 132.4 127.7 **126.325 124.7** 124.7
 Nassau – **134.8** 125.7
 Pahokee – **133.55** 132.45
 Sarasota – **133.9** 132.35 **128.225**
 Vero Beach – 135.7 132.25 **125.075**
 West Palm Beach – 135.175 133.4 132.15

CENTER REMARKS: All northbound IFR flights entering Miami in vicinity of Grand Turk and Great Inagua must contact Miami Center on 132.3/307.2 at least 10 minutes prior to the Miami Center boundary for an air traffic clearance. Alternate communications are avbl thru ARINC or Miami Radio. This is due to heavy air traffic congestion in this area.

® SAN JUAN CENTER
H-2-3, L-5-6**(ZSU) (MJZS)**

Borinquen – **135.7** 135.7 124.35
 El Yunque – **134.3** 134.3 **128.65** 128.6 **125.0** 125.0 **118.75** 118.75 **118.15** 118.15
 Pico Del Este – **134.3** 134.3 **128.65** 128.65 **125.0** 125.0 **118.15** 118.15

CENTER REMARKS: All acft on an IFR flight plan in the San Juan CTA and within 200 NM of San Juan are requested to ctc San Juan Center on the following frequencies: Amber 300 clockwise thru Amber 523—134.3; East of Amber 523 clockwise to North of Blue 520—125.0; Blue 520 clockwise thru Amber 636—118.15; Red 763 clockwise thru Green 431—135.7. San Juan Cerap provides IFR clearances for St Croix Christiansted on freq 121.7 when St Croix twr closed. San Juan Cerap provides IFR clearances for St Thomas Charlotte Amalie-Harry S Truman on freq 121.9 when twr closed. San Juan Cerap provides IFR clearances for Ponce-Mercedita on freq 121.9. San Juan Cerap provides IFR clearances for Mayaguez-Eugenio Maria De Hostos on freq 121.7.

® WASHINGTON CENTER
H-9-10-12, L-24-25-26-29-34-35-36**(KZDC)**

Arr-Dep US – 135.5 **133.82 133.12** 132.55 **128.52** 127.7 **127.42 124.02** 123.85 **118.82**
 Green Bay – **133.725** 127.75
 Johnsonville – 135.2 **118.925**
 Manteo – 124.725
 New Bern – 135.5 **118.825**
 Rocky Mount – 118.475 **132.225**
 Sampson – 135.3
 Whaleyville – **133.825 128.525 127.425** 123.85
 Wilmington – 124.025

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. "T" indicates transmit only and "R" indicates receive only. RCO's available at NAVAIDS are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

ANDERSON AFSS

AIKEN RCO 122.45
 ALLENDALE VOR 116.7T 122.1R
 ANDERSON RCO 122.2 123.6
 CHARLESTON VORTAC 113.5T 122.1R 122.2 122.5
 CHESTERFIELD VOR/DME 108.2T 122.05R
 COLLIER'S VORTAC 113.9T 122.1R
 COLUMBIA VORTAC 114.7T 122.1R 122.65
 FLORENCE VORTAC 115.2T 122.1R 122.6
 FOOTHILLS VORTAC 113.4T 122.1R
 FORT MILL VORTAC 112.4T 122.1R
 GRAND STRAND VORTAC 117.6T 122.1R 123.6
 GREENWOOD VORTAC 115.5T 122.1R 122.625
 GREER RCO 122.2 122.65
 HILTON HEAD ISLAND RCO 122.55
 SPARTANBURG VORTAC 115.7T 122.1R
 VANCE VORTAC 110.4T 122.1R

ANNISTON AFSS

ANNISTON RCO 122.2 123.6
 BIRMINGHAM RCO 122.2 123.65
 BROOKLEY VORTAC 112.8T 122.1R
 CRIMSON VORTAC 117.8T 122.1R
 DECATUR RCO 122.6
 DOTHAN RCO 122.2 122.5
 EUFAULA VORTAC 109.2T 122.1R
 GADSDEN VOR/DME 112.3T 122.1R
 HAMILTON RCO 122.3
 HUNTSVILLE RCO 122.2
 MOBILE RCO 122.2 123.65
 MONROEVILLE VORTAC 116.8T 122.1R
 MONTGOMERY VORTAC 112.1T 122.1R 122.2 122.55
 MUSCLE SHOALS RCO 122.2 122.4
 SELMA RCO 122.4
 TALLADEGA VOR/DME 108.8T 122.05R
 TUSCALOOSA RCO 122.2
 TUSKEGEE VOR/DME 117.3T 122.1R
 VULCAN VORTAC 114.4T 122.1R
 WIREGRASS VORTAC 111.6T 122.1R

GAINESVILLE AFSS 122.1R 122.2 122.5 123.65

CRAIG VORTAC 114.5T 122.1R 122.2 122.45
 CRESTVIEW RCO 122.0 122.2 122.45
 CROSS CITY VORTAC 112.0T 122.1R
 GATORS VORTAC 116.2T 122.1R
 GREENVILLE VORTAC 109.0T 122.1R
 LAKE CITY RCO 122.6
 MARIANNA VORTAC 114.0T 122.1R
 OCALA VORTAC 113.7T 122.1R
 PALATKA RCO 122.25
 PANAMA CITY VORTAC 114.3T 122.1R
 PENSACOLA RCO 122.2 122.6
 PERRY RCO 122.45
 ST AUGUSTINE RCO 122.3
 SAUFLEY VOR 108.8T 122.1R
 SEMINOLE VORTAC 117.5T 122.1R 122.2 122.4
 TAYLOR VORTAC 112.9T 122.1R

JACKSON AFSS

CLARKSVILLE VOR/DME 110.6T 122.1R
DYERSBURG RCO 122.2 122.45
GRAHAM VORTAC 111.6T 122.1R 122.25
JACKS CREEK VOR/DME 109.4T 122.1R
JACKSON RCO 122.2 **122.65** 127.15
MEMPHIS VORTAC 117.5T 122.1R 122.2 123.65

LOUISVILLE AFSS

BOWLING GREEN RCO 122.2 122.4
CENTRAL CITY VORTAC 109.8T 122.1R
CINCINNATI VORTAC 117.3T 122.1R
FALMOUTH VOR/DME 117.0T 122.1R
FRANKFORT VOR 109.4T 122.1R
HAZARD VOR/DME 111.2T 122.1R
LEXINGTON VORTAC 112.6T 122.1R
LONDON VORTAC 116.1T 122.1R 122.2 122.65
LOUISVILLE RCO 122.1R 122.2 **122.45**
MADISON RCO 122.3
NEW HOPE VOR/DME 110.8T 122.1R
NEWCOMBE VORTAC 110.4T 122.1R
OWENSBORO VOR/DME 108.6T 122.1R
PADUCAH RCO 122.2 122.5
PIKEVILLE RCO 122.05
SOMERSET RCO 122.55
YORK VORTAC 112.8T 122.1R

MACON AFSS

ALBANY RCO 122.6
 ALMA VORTAC 115.1T 122.1R 123.6
 ATHENS VORTAC 109.6T 122.1R
 ATLANTA VORTAC 116.9T 122.1R 122.2 122.6
 BRUNSWICK VORTAC 109.8T 122.1R 122.2
 CHOO CHOO VORTAC 115.8T 122.1R
 COLUMBUS VORTAC 117.1T 122.1R 122.65
 DANIEL RCO 122.3
 DUBLIN VORTAC 113.1T 122.1R 122.6
 GAINESVILLE RCO 122.55
 HARRIS RCO 122.35
 LAGRANGE VORTAC 115.6T 122.1R
 MACON RCO 122.1R 122.2 122.4
 MOULTRIE VOR/DME 108.8T 122.1R
 PEACHTREE VOR/DME 116.6T 122.1R
 ROME RCO 122.3
 SAVANNAH VORTAC 115.95T 122.1R 123.65
 STATESBORO RCO 122.6
 THOMASVILLE RCO 122.55
 TIFT MYERS RCO 122.35
 VALDOSTA VOR/DME 114.8T 122.1R 122.2
 VIENNA VORTAC 116.5T 122.1R
 WAYCROSS VORTAC 110.2T 122.1R

MIAMI AFSS 122.2 122.3 **122.55** 123.65**MIAMI IFSS** 127.9 126.9 126.7

DADE COLLIER RCO 122.3
 DAVIE RCO 126.7
 DOLPHIN VORTAC 113.9T 122.1R
 FORT MYERS RCO 122.1R 122.2 **122.65**
 FORT PIERCE RCO 122.55
 KEY WEST VORTAC 113.5T 122.1R 122.2 **123.65**
 LA BELLE VORTAC 110.4T 122.1R
 MARATHON RCO 122.6
 NAPLES RCO 123.6
 PAHOKEE VORTAC 115.4T 122.1R 122.35
 PALM BEACH VORTAC 115.7T 122.1R 122.4
 VIRGINIA KEY VOR/DME 117.1T 122.1R

NASHVILLE AFSS

BRISTOL RCO 122.2
CHATTANOOGA RCO 122.2 123.65
CROSSVILLE RCO 122.2 122.5
HINCH MOUNTAIN VORTAC 117.6T 122.1R
HOLSTON MOUNTAIN VORTAC 114.6T 122.1R
LIVINGSTON VORTAC 108.4T 122.1R
MCGHEE TYSON RCO 122.2 122.3
NASHVILLE RCO 114.1T 122.1R 122.2 122.55
SHELBYVILLE VOR/DME 109.0T 122.1R
VOLUNTEER VORTAC 116.4T 122.1R

RALEIGH AFSS

BARRETTS MOUNTAIN VOR/DME 110.8T 122.1R
CHARLOTTE RCO 122.4
COFIELD VORTAC 114.6T 122.1R
ELIZABETH CITY VOR/DME 112.5T 122.05R 122.2
FAYETTEVILLE VOR/DME 108.8T 122.1R
GREENSBORO VORTAC 116.2T 122.1R 122.2 123.65
HATTERAS RCO 122.3
HICKORY RCO 122.2 122.6
KINSTON VORTAC 109.6T 122.15R
LIBERTY VORTAC 113.0T 122.1R
NEW BERN VOR/DME 113.6T 122.1R 122.2 122.4
PITT-GREENVILLE RCO 122.35
RALEIGH RCO 122.2 122.45 122.65
ROCKY MOUNT RCO 122.2 122.3
SANDHILLS VORTAC 111.8T 122.1R
SNOWBIRD VORTAC 108.8T 122.1R
SUGARLOAF MOUNTAIN VORTAC 112.2T 122.1R 122.2 122.3
TAR RIVER VORTAC 117.8T 122.1R
WILKESBORO RCO 122.4
WILMINGTON VORTAC 117.0T 122.1R 122.55

SAINT PETERSBURG AFSS

BROOKSVILLE RCO 122.3
FORT DRUM RCO 122.2
LAKELAND VORTAC 116.0T 122.1R
MELBOURNE VOR/DME 110.0T 122.1R 122.6
ORLANDO VORTAC 112.2T 122.1R 122.2 **122.65** 123.65
ORMOND BEACH VORTAC 112.6T 122.1R 122.4
PUNTA GORDA RCO 122.025
ST PETERSBURG VORTAC 116.4T 122.1R 122.2 122.45 123.6
SARASOTA VORTAC 115.2T 122.1R
SEBRING RCO 122.25
TITUSVILLE RCO 123.6
VERO BEACH VORTAC 117.3T 122.1R 122.2 122.5

SAN JUAN AIFSS

BORINQUEN VORTAC 113.5T 122.1R
MAYAGUEZ VOR/DME 110.6T 122.1R
PONCE VOR/DME 109.0T 122.1R
ST CROIX VOR/DME 108.2T 122.1R
ST THOMAS VOR/DME 108.6T 123.6R
SAN JUAN RCO 126.7 123.65 122.2

FLIGHT STANDARDS DISTRICT OFFICES (FSDO)

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office—Federal Aviation Administration.

ALABAMA

Liberty Park Building 1500, Suite 250
1500 Urban Center Drive
Vestavia Hills, AL 35242
Telephone: 205-731-1557

FLORIDA

Ft. Lauderdale Jet Center
1050 Lee Wagener Blvd.
Ft. Lauderdale, FL 33315
Telephone: 954-635-1300

5950 Hazeltine
National Drive Suite 500
Orlando, FL 32822-5023
Telephone: 407-812-7700
Fax: 407-812-7710

8600 NW 36th Street
Miami, FL 33166
Telephone: 305-716-3400

5601 Mariner St, Suite 310
Tampa, FL 33609
Telephone: 813-287-4900
Fax: 813-639-1551

GEORGIA

Campus Building
1701 Columbia Ave. Suite 2-110
College Park, GA 30337-2748
Telephone: 404-305-7200
Fax: 404-305-7215

KENTUCKY

1930 Bishop Lane
Waterson Towers, 11th Floor
Louisville, KY 40218
Telephone: 502-753-4200

NORTH CAROLINA

6433 Bryan Blvd.
Greensboro, NC 27409
Telephone: 336-662-1000

3800 Arco Corporate Drive, Suite 233
Charlotte, NC 28273
Telephone: 704-319-7020

PUERTO RICO

525 F.D. Roosevelt Ave.
La Torre de Plaza, Suite 901
San Juan, PR 00918
Telephone: 787-764-2538

SOUTH CAROLINA

125-B Summer Lake Drive
West Columbia, SC 29170
Telephone: 803-765-5931

TENNESSEE

2 International Plaza Drive, Suite 700
Nashville, TN 37217
Telephone: 615-324-1300

2842 Business Park Drive, Bldg G
Memphis, TN 38118
Telephone: 901-322-8600

PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.
2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).
3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.
4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.
5. Where more than one route is listed the routes have equal priority for use.
6. Official location identifiers are used in the route description for VOR/VORTAC nav aids.
7. Intersection names are spelled out.
8. Navaid radial and distance fixes (e.g., ARD201113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW081); or an intersection (e.g., GSW081 FITCH).
9. Where two nav aids, an intersection and a navaid, a navaid and a navaid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.
10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.
11. (90–170 incl) altitude flight level assignment in hundred of feet.
12. The notations “pressurized” and “unpressurized” for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.
13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.
Sun..... 1300–2259 local time.
Mon thru Fri 0701–2259 local time.
Sat 0701–1459 local time.
14. Use current SIDs and STARs for flight planning.
15. For high altitude routes, the portion of the routes contained in brackets is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

LOW ALTITUDE

Terminals	Route	Effective Times (UTC)
ATLANTA METRO AREA		
Chicago Midway (MDW)	(60–170 incl) V97 NELLO V311 HCH V51 CGT	1200–0300
Chicago O'Hare (ORD).....	(60–170 incl) V97 NELLO V311 HCH V51 CGT V7 BEBEE	1200–0300
Cincinnati (CVG).....	(80–170 incl) V97 VXV V115 AZQ V339 FLM	1200–0300
CINCINNATI METRO AREA (CVG, LUK)		
Detroit/Wayne (DTW)	DQN MIZAR–STAR	1100–0300
	or (RNAV only) HAGOL (RNAV)–DP DQN MIZAR–STAR	1100–0300
Detroit Satellites:		
Ann Arbor (ARB)	DQN CRUX–STAR	1100–0300
	or (RNAV only) HAGOL (RNAV)–DP DQN CRUX–STAR	1100–0300
Pontiac (PTK),	or (RNAV only) HAGOL (RNAV)–DP DQN CRUX–STAR	

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Terminals	Route	Effective Times (UTC)
Sarasota/Bradenton (SRQ)	(60–170) LBV V97 ROGAN	1030–0300
	or	
	(60–170) SRQ	1030–3000
	or	
	(at or below 50) DHP V97 ROGAN.....	1030–0300
	or	
	(60–170) ROGAN	1030–0300
Tallahassee (TLH)	(at or below 50) DHP V97 LBV V157 LAL V7 SZW .	1030–0300
	or	
	(60–170) V511 LAL V7 SZW	1030–0300
Tampa (TPA)	(60–170) LBV BRDGE–STAR	1030–0300
	or	
	(60–170) BRDGE BRDGE–STAR	1030–0300
	or	
	(at or below 50) DHP V97 PIE	1030–0300
	or	
	(60–170, GPS or DME/DME–IRU equipped) DEAKK DEAKK (RNAV)–STAR.....	1030–0300
	or	
	(60–170, GPS or DME/DME–IRU equipped) LBV DEAKK (RNAV)–STAR	1030–0300
Vero Beach (VRB).....	(at or below 100) V3.....	1030–0300
	or	
	(110–170) V159 TBIRD	1030–0300
FORT MYERS METRO AREA (RSW, FMY, APF, MKY, PGD)		
Daytona Beach (DAB)	ORL.....	1030–0300
Ft. Lauderdale (FLL)	(RSW/FMY/PGD–prop/turbo) RSW V599	1030–0300
	or	
	(RSW/FMY/PGD–turbo/jets) FORTL JINGL (RNAV)–STAR.....	1030–0300
	or	
	(APF/MKY prop/turbo) DRCT.....	1030–0300
	or	
	FORTL JINGL (RNAV)– STAR	1030–0300
Ft. Pierce (FPR).....	V225	1030–0300
Gainesville (GNV).....	V7 LAL V157	1030–0300
Jacksonville (JAX).....	ORL V267 CRG	1030–0300
Lakeland (LAL).....	V7 LAL.....	1030–0300
Melbourne (MLB)	V225 VRB	1030–0300
Miami (MIA).....	V35 CURVE	1030–0300
	or	
	(all others) CYY CYY–STAR	1030–0300
	or	
	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	1030–0300
Orlando (MCO).....	(Jets) LAL ORL	1030–0300
	or	
	(Turbo/Props) ORL	1030–0300
	or	
	(Jets) LAL MINEE–STAR.....	1030–0300
	or	
	(Jets) DOWNN MINEE–STAR.....	1030–0300
	or	
	(Turbo/Props) DOWNN MINEE–STAR.....	1030–0300
Ocala (OCF).....	V7 LAL V157	1030–0300
Tallahassee (TLH)	V7 SZW.....	1030–0300
Tampa (TPA)	(at or below 100) V35 PIE	1030–0300
	or	
	(110–170) RSW BRDGE–STAR	1030–0300
	or	
	(GPS or DME/DME–IRU equipped) DEAKK (RNAV)–STAR.....	1030–0300
Vero Beach (VRB).....	V225	1030–0300

404		PREFERRED IFR ROUTES	
Terminals		Route	Effective Times (UTC)
GAINESVILLE (GNV)			
Ft. Lauderdale (FLL).....	(100 and below) V157 NEWER.....		0000–2359
Ft. Myers (FMY).....	(100 and below) V157 LAL V521.....		0000–2359
Miami (MIA).....	(100 and below) V157 LBV V529 V35 CURVE		0000–2359
Orlando (ORL).....	(100 and below) V157 OCF V159		1100–0400
Sarasota/Bradenton (SRQ).....	(100 and below) V157 LAL		0000–2359
Tampa (TPA)	(100 and below) V157 OCF V581 DADES		0000–2359
JACKSONVILLE METRO AREA (JAX)			
Miami (MIA).....	(100 and below) V3 MLB V437 PHK V267 BRIKL..		1300–0300
Tampa (TPA)	(100 and below) OCF V581 DADES.....		0000–2359
	or		
	(100 and below, GPS or DME/DME–IRU equipped) OCF V581 DADES (RNAV)–STAR		0000–2359
KEY WEST METRO AREA (NQX)			
Daytona Beach (DAB).....	RSW ORL		1030–0300
Ft Myers (RSW)	EYW		1030–0300
Fort Lauderdale (FLL).....	(props) EYW V157 DHP		
	or		
	(jets-all others) EYW DVALL–STAR		1030–0300
	or		
	(jets-/E,/G,/R,/J,/L,/Q) EYW CORSO (RNAV)–STAR.....		1030–0300
Melbourne (MLB).....	EYW PHK.....		1030–0300
Miami (MIA).....	(props) EYW V157		
	or		
	(Jets-all others) EYW DVALL–STAR.....		1030–0300
	or		
	(Jets-/E,/G,/R,/J,/L,/Q) EYW CORSO (RNAV)–STAR.....		1030–0300
Orlando (MCO).....	(props) EYW RSW MINEE–STAR		
	or		
	(Jets) EYW RSW MINEE–STAR		1030–0300
Palm Beach (PBI)	EYW PHK.....		1030–0300
Sarasota/Bradenton (SRQ)	(at or below 100) EYW RSW V35 MURDO		1030–0300
	or		
	(110–170) EYW RSW V7 ROGAN.....		
Tallahassee (TLH)	EYW RSW V7 SZW		1030–0300
Tampa (TPA).....	(at or below 100) EYW RSW V35 PIE.....		
	or		
	(110–170) EYW RSW V7 BRDGE–STAR		1030–0300
	or		
	(110–170, GPS or DME/DME–IRU equipped) EYW V225		
	RSW V7 ROGAN DEAKK (RNAV)–STAR		1030–0300
Vero Beach (VRB).....	EYW PHK V51		1030–0300
LAKELAND METRO AREA (LAL, GIF, BOW, BKV, X16)			
Ft Lauderdale (FLL)	(Jets only–all others) V7 RSW FORTL–STAR		1030–0300
Ft. Myers (FMY).....	V521		1030–0300
Ft Pierce (FPR).....	(at or below 140) V441 DEARY V159		1030–0300
	or		
	(150–170) VRB.....		1030–0300
Key West (EYW)	V7 RSW V225		1030–0300
Miami (MIA).....	(100 and below) V157 LBV V529 V35 CURVE		
	or		
	(all others) CYY CYY–STAR		1030–0300
	or		
	(Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR		
Opa Locka (OPF)	(props/turbo) V511 NEWER.....		
	or		
	(Turbojets–GPS or DME/DME–IRU equipped) RSW CYY SSCOT (RNAV)–STAR.....		
Vero Beach (VRB).....	(at or below 140) V441 DEARY V159		1030–0300
	or		
	(150–170) VRB.....		1030–0300
West Palm Beach (PBI)	PHK.....		1030–0300
SE. 23 SEP 2010 to 18 NOV 2010			

Terminals	Route	Effective Times (UTC)
LEXINGTON (LEX)		
Atlanta (ATL)	HYK V53 AZQ SOT WHINZ-STAR.....	
LOUISVILLE		
Kansas City (MKC)	V4 PXV V190 SGF TYGER-STAR	0000-2359
Wichita (ICT).....	V4 PXV V190 SGF V132 CNU V350	0000-2359
MEMPHIS		
Chicago Midway (MDW)	SPI MOTIF-STAR	0000-2359
Chicago O'Hare (ORD).....	MAW V313 PNT V227 PLANO	1100-0300
	or	
	PNT V227 PLANO	0000-2359
MIAMI METRO AREA (MIA, HWO, OPF, TMB, HST, X51)		
Cross City (CTY).....	V97 LBV V157 LAL V7	1030-0300
	or	
	LAL	1030-0300
Daytona Beach (DAB)	(at or below 100) PBI V3 SMYRA	1030-0300
	or	
	(110-170) V437 MLB V3	1030-0300
Ft Pierce (FPR).....	(at or below 100) PBI V3	1030-0300
	or	
	(110-170) V267 PHK V51 VRB	1030-0300
	or	
	FPR	
Gainesville (GNV)	V97 LBV V157	1030-0300
	or	
	LAL	1030-0300
Jacksonville (JAX).....	(at or below 90) PBI V3 OMN V51 CRG.....	1030-0300
	or	
	(at 110) PHK V437 MLB V3 OMN V51 CRG.....	1030-0300
	or	
	(130-170) V267 CRG	1030-0300
Lakeland (LAL).....	V97 LBV V157 LAL	1030-0300
	or	
	LAL	1030-0300
Melbourne (MLB)	(at or below 100) V3.....	1030-0300
	or	
	(120-170) PBI V531 TBIRD	1030-0300
New Orleans (MSY)	(below FL180) LBV SRQ AM	1100-0300
Ocala (OCF)	DHP V97 LBV V157	1030-0300
	or	
	LAL	1030-0300
Orlando (MCO).....	(at or below 100) PBI V531 ORL.....	
	or	
	(110-170) V267 PHK GOOFY-STAR.....	1030-0300
Overwater Routes to the Northeast	PERMT ILM or PERMT DIW	
Sarasota/Bradenton (SRQ)	V97 ROGAN	1030-0300
Tallahassee (TLH)	DHP V97 LBV V157 LAL V7 SZW	1030-0300
Tampa (TPA).....	V97 LBV BRDGE-STAR.....	1030-0300
	or	
	(GPS or DME/DME-IRU equipped) V97 LBV	
	DEAKK	1030-0300
Vero Beach (VRB).....	(at or below 100) PBI V3	1030-0300
	or	
	(110-170) V267 PHK V51.....	1030-0300
	or	
	(110-170) VRB.....	1030-0300
NASHVILLE		
Tallahassee (TLH)	RQZ TDG TGE RRS.....	1100-2300
ORLANDO METRO AREA (MCO, ORL, ISM, LEE, SFB)		
Ft Lauderdale (FLL)	(at or below 100) PHK V267 BRIKL.....	1030-0300
	or	
	(110-170) PHK V267 BRIKL.....	1030-0300
Ft Pierce (FPR).....	V159 VRB	1030-0300
Key West (EYW)	RSW V225	1030-0300
Miami (MIA).....	(at or below 100) PHK V267 BRIKL.....	1030-0300

Terminals	Route	Effective Times (UTC)
West Palm Beach (PBI)	(props/turbo props) V159 VRB V295 STOOP V492	1030-0300
	or (Jets only) PHK	1030-0300
	or (Turbojets-GPS or DME/DME-IRU equipped) DEARY VRB FRWAY (RNAV)-STAR	
PALM BEACH METRO AREA (PBI, BCT, LNA, UTX, SUA)		
Cross City (CTY)	(at or below 140) V531 BAIRN OCF V159	
	or (150-170) LAL V7	1030-0300
Daytona Beach (DAB)	V3 SMYRA	1030-0300
	or V531 TBIRD MLB V3 SMYRA	1030-0300
Ft. Myers (RSW)	RSW	1030-0300
Jacksonville (JAX)	(at or below 110) V3 VRB V51 CRG	
	or (130-170) ORL V267 CRG	1030-0300
Lakeland (LAL)	LBV V157	1030-0300
	or (SUA Dep) LAL	
Melbourne (MLB)	(at or below 100) V3	
	or (120-170) PBI V531 TBIRD	1030-0300
Ocala (OCF)	(at or below 140) V531 BAIRN OCF	
	or (150-170) LAL OCF	
Orlando (ORL/MCO)	V531 BAIRN GOOFY-STAR	1030-0300
Overwater Routes to the Northeast	A699 STIFF AR7	
Sarasota/Bradenton (SRQ)	LBV V97 ROGAN	
	or (SUA Dep) SRQ	
Tallahassee (TLH)	(at or below 140) V531 BAIRN OCF V159 CTY V7 SZW	
	or (150-170) LAL V7 SZW	1030-0300
Tampa (TPA)	LBV BRDGE-STAR	
	or BRDGE BRDGE-STAR	1030-0300
	or (GPS or DME/DME-IRU equipped) DEAKK DEAKK (RNAV)-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) LBV DEAKK (RNAV)-STAR	1000-0300
Vero Beach (VRB)	(at or below 100) PBI V3	
	or (110-170) V531 TBIRD	1030-0300
From STUART (SUA) only:		
Cross City (CTY)	(at or below 120) BAIRN OCF V159	
	or (130-170) LAL V7	1030-0300
Lakeland (LAL)	TBIRD V531 ODDEL V441 LAL	1030-0300
Ocala (OCF)	TBIRD V531 BAIRN	1030-0300
Tallahassee (TLH)	(at or below 120) BAIRN OCF V159 CTY V7 SZW ..	
	or (130-170) LAL V7 SZW	1030-0300

Terminals	Route	Effective Times (UTC)
SARASOTA/BRADENTON AREA (SRQ)		
Ft Lauderdale (FLL)	(at or below 100, below 210 kts) RSW V599 NEWER	
	or (110–170), below 210 kts) LBV V157 NEWER	
	or (at or above 210 kts) V579 RSW V7 KUBIC	
	or (all others) RSW FORTL–STAR	1030–0300
	or (/E, /G, /R, /J, /L, /Q) RXXAN JINGL (RNAV)–STAR	
Ft Myers (RSW)	V579 RSW	1030–0300
Orlando (MCO)	LAL MINEE–STAR	1030–0300
West Palm Beach (PBI)	SABEE JOOOE WLACE (RNAV)–STAR	
TALLAHASSEE AND CROSS CITY AREA		
Ft Myers (FMY)	(120 and below) CTY V7 LAL V521	1100–0300
Miami (MIA)	(170 and below) LAL V157 LBV V529 V35 CURVE	1300–0300
TAMPA/ST PETERSBURG METRO AREA (TPA, SPG, PIE, TPF)		
Ft Lauderdale (FLL)	(Jets only) RSW V7 KUBIC FLL	
	or (all others) RSW FORTL–STAR	
	or (Turboprop–all others) RSW FORTL–STAR	1030–0300
	or (props only) V509 HALLR V511 NEWER	1030–0300
	or (GPS or DME/DME–IRU equipped) SABEE RXXAN JINGL (RNAV)–STAR	
Ft Myers (RSW)	PIE V579 RSW	
	or (Turbojets–GPS or DME/DME–IRU equipped) SRQ TYNEE (RNAV)–STAR	
Ft Pierce (FPR)	(at or below 140) V441 DEARY V159	
	or (150–170) VRB	1030–0300
Key West (EYW)	PIE V35 RSW V225	
	or V579 RSW V225	1030–0300
Miami (MIA)	RSW V35 CURVE	1030–0300
	or (all others) CYY CYY–STAR	1030–0300
	or (Turbojets–GPS or DME/DME–IRU equipped) CYY SSCOT (RNAV)–STAR	
Opa Locka (OPF)	(props) V509 HALLR V511 NEWER	
	or (turbo) RSW V7 KUBIC	
	or (turbo) V509 HALLR V511 NEWER	1030–0300
	or (jets) RSW CYY CYY–STAR	1030–0300
	or (Turbojets–GPS or DME/DME–IRU equipped) RSW CYY SSCOT (RNAV)–STAR	
Orlando (MCO)	LAL MINEE–STAR (Max alt. 12,000 ft)	1030–0300
Vero Beach (VRB)	(at or below 140) V441 DEARY V159	
	or (150–170) VRB	1030–0300
West Palm Beach (PBI)	RSW PHK	
	or (Turbojets–GPS or DME/DME–IRU equipped) SABEE JOOOE WLACE (RNAV)–STAR	

SPECIAL LOW ALTITUDE ARRIVAL ROUTES FOR ATLANTA TERMINAL AREA (JETS AND TURBOPROPS)

NORTHEAST

Traffic entering ZTL airspace V97 and East to V66 file:

.....	VXV AWSON-STAR.....
.....	SOT ODF AWSON-STAR.....
.....	SUG ODF AWSON-STAR
.....	SPA ODF AWSON-STAR.....
.....	ELW ODF AWSON-STAR

SOUTHEAST

Traffic entering ZTL airspace South of V66 to East of a line from ATL to MGR file:

.....	IRQ TRBOW-STAR
.....	DBN TRBOW-STAR
.....	MCN TRBOW-STAR.....
.....	DBN JRAMS (RNAV)-STAR
.....	IRQ TRBOW-STAR
.....	MCN JRAMS (RNAV)-STAR.....

Traffic originating South of a line from ATL to RDU to East of J89 file:

.....	DBN JRAMS (RNAV)-STAR
.....	DBN TRBOW-STAR
.....	IRQ JRAMS (RNAV)-STAR
.....	IRQ TRBOW-STAR

SOUTHWEST

Traffic entering ZTL airspace South of V278 to West of a line from ATL to MGR file:

.....	LDK V66 LGC DIFFI-STAR.....
.....	MVC MGM LGC DIFFI-STAR
.....	CEW MGM LGC DIFFI-STAR
.....	SZW PZD CSG LGC DIFFI-STAR
.....	V56 MGM LGC DIFFI-STAR

NORTHWEST

Traffic entering ZTL airspace on V278 and North to West of V97 file:

.....	IGB V278 VUZ V417 MAYES V325 DALAS
.....	HAB V159 VUZ V417 MAYES V325 DALAS.....
.....	MSL V325 DALAS.....
.....	DCU V541 GAD V325 DALAS
.....	RQZ BUNNI-STAR.....
.....	BNA V5 GQO BUNNI-STAR.....
.....	SYI V67 GQO BUNNI-STAR
.....	BWG V243 GQO BUNNI-STAR
.....	LVT V51 HCH V333 GQO BUNNI-STAR
.....	HYK V333 GQO BUNNI-STAR

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Low Altitude IFR routes for traffic overflying the Charlotte Metro Area:		
.....	PSK V37 CAE (90 and 100 only)	1100-0300
.....	SPA V54 LOCAS (90 and 100 only).....	1100-0300
.....	GRD V66 SDZ (30-100 only)	1100-0300

HIGH ALTITUDE

Terminals	Route	Effective Times (UTC)
ATLANTA (ATL)		
Austin (AUS)	WEONE J239 MEI AEX LFK.....	1100-0300
Baltimore (BWI).....	EAONE SPA J14 RIC OTT-STAR	1100-0300
Boca Raton (BCT).....	(GPS or DME/DME-IRU equipped) BRAVS (RNAV)-DP WALET OTK PRRIE (RNAV)-STAR	1100-0300
Boston (BOS).....	EATWO GRD J209 RDU J207 FKN J79 JFK ORW-STAR.....	1100-0300

Terminals	Route	Effective Times (UTC)
Chicago Midway (MDW)	(/E/G/R/S/L/Q only) NOONE J89 IIU OKK FISSK (RNAV)–STAR	1100–0300
	or (Non-Advanced RNAV only) NOONE J89 IIU OKK V285 CLEFT OXI CGT	1100–0300
Chicago O'Hare (ORD)	(non-Advanced RNAV only) CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	1100–0300
	or (/E/G/R/J/L/Q only) CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)–STAR	1100–0300
	or J89 IIU MZZ OXI	
Cincinnati (CVG)	NOTWO J43 VXV J91 HNN HARDU–STAR	1100–0300
Charlotte (CLT)	GRD ADENA (RNAV)–STAR	1100–0300
Cleveland (CLE)	SUMMT (RNAV)–DP VXV J91 BULEY J91 HNN VTT KEATN–STAR	
Columbus (CMH)	NOTWO J43 VXV J91 HNN BREMN–STAR	1100–0300
Denver (DEN)	WETWO VUZ J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	1100–0300
Detroit/Wayne (DTW)	SUMMT (RNAV)–DP VXV J91 HNN WEEDA–STAR ...	
Eglin AFB (KVPS)	NOVSS (RNAV) DP SARGE RRS CEW	
Flint (FNT)	NUGGT (RNAV)–DP RAFTN FLM J43 ROD JXN V353	
Fort Lauderdale (FLL)	SOONE J89 HITTR PIE FORTL–STAR	1100–0300
	or (GPS or DME/DME–IRU equipped) BRAVS (RNAV)–DP WALET OTK JINGL (RNAV)–STAR	1100–0300
Fort Myers (FMY and RSW)	(Turbojets–GPS or DME/DME–IRU equipped) THRSR (RNAV)–DP LUCKK SZW TYNEE (RNAV)–STAR	1100–0300
Gainesville (GNV)	SOONE J89 OTK	1100–0300
Houston (HOU)	(DME/DME–IRU or GPS–equipped) JAMMR AEX ROKIT (RNAV)–STAR	
	or (Non–advanced NAV only) JAMMR MEI AEX DAS–STAR	
Houston (IAH)	(Turbojets–DME/DME–IRU or GPS–equipped) JAMMR AEX TXMEX (RNAV)–STAR	
Kennedy (JFK)	EATWO GRD J209 ORF J121 SIE CAMRN–STAR	1100–0300
La Guardia (LGA)	EAONE AHN J208 HPW J191 PXT KORRY–STAR	1100–0300
Louisville (SDF)	NOONE HCH DARBY–STAR	1100–0300
Marco Island (MKY)	SOTWO J43 SZW PIKKR (RNAV)–STAR	
	or SOONE J89 J75 TEPEE ZEILR–STAR	
Miami (MIA)	(all others) SOTWO SZW J43 PIE CYY–STAR	1100–0300
	or (Turbojets–GPS or DME/DME equipped) THRSR (RNAV)–DP LUCKK SZW SSCOT (RNAV)–STAR	1100–0300
Minneapolis (MSP)	(all others) NOONE J89 IIU J89 BAE EAU–STAR	1100–0300
	or (RNAV only) COKEM (RNAV) DP CARPT BNA ENL IOW ALO KASPR–STAR	1100–0300
Naples (APF)	SOTWO J43 SZW PIKKR (RNAV)–STAR	
Newark (EWR)	GSO J14 J51 FAK DYLIN–STAR	1100–0200
	or (GPS or DME/DME–IRU equipped) GSO J14 J51 FAK PHLBO (RNAV)–STAR	1100–0200
Orlando (MCO)	SOONE J89 OTK LEESE–STAR	1100–0300
	or (GPS or DME/DME–IRU equipped) SOONE J89 OTK PIGLT (RNAV)–STAR	1100–0400
Orlando (ORL)	(GPS or DME/DME–IRU equipped) SOONE J89 OTK PIGLT (RNAV)–STAR	1100–0400
Panama City–Bay Co Intl (PFN)	NOVSS (RNAV) DP SARGE	
Pensacola Rgnl (PNS)	NOVSS (RNAV) DP SARGE	

410		PREFERRED IFR ROUTES	
Terminals	Route	Effective Times (UTC)	
Philadelphia (PHL)	EAONE SPA J14 J51 FAK DPNT-STAR	1100-0300	
Raleigh-Durham (RDU).....	EATWO IRQ CAE BUZZY-STAR	1100-0300	
Sarasota/Bradenton (SRQ).....	J43 SZW CLAMP-STAR	1100-0300	
Tampa (TPA)	SOTWO J43 SZW DARBS-STAR	1100-0300	
	or		
	(GPS or DME/DME-IRU equipped) SOTWO J43		
	SZW FOXXX (RNAV)-STAR	1100-0300	
Teterboro (TEB).....	(Advanced Nav Only) EAONE SPA J14 J51 FAK		
	JAIKE-STAR.....	1100-0300	
	or		
	(Non-Advanced Nav Only) EAONE SPA J14 J51		
	FAK BRV AML J227 J49 J70 LVZ LVZ-STAR	1100-0300	
Washington Natl (DCA).....	(GPS or DME/DME-IRU equipped) EAONE SPA		
	J14 RIC OJAAY (RNAV)-STAR	1100-0300	
	or		
	EAONE SPA J14 RIC IRONS-STAR.....		
West Palm Beach (PBI)	(Turbojets-GPS or DME/DME-IRU equipped)		
	BRAVS (RNAV)-DP WALET OTK WLACE		
	(RNAV)-STAR.....	1100-0300	
Windsor Locks (BDL)	EATWO GRD J209 RDU J207 FKN J79 JFK DPK		
	DPK-STAR.....	1100-0300	
AUGUSTA (AGS)			
Kennedy (JFK)	GRD J209 ORF J121 SIE CAMRN-STAR		
BIRMINGHAM (BHM)			
Baltimore (BWI).....	ATL J14 RIC OTT-STAR		
	or		
	(GPS or DME/DME-IRU equipped) ATL J14 RIC		
	RAVNN (RNAV)-STAR		
Chicago Midway (MDW).....	(/E/G/R/J/L/Q only) VUZ IIU OKK FISSK		
	(RNAV)-STAR.....	1100-0300	
	or		
	(non-advanced RNAV only) VUZ IIU OKK V285		
	CLEFT OXI CGT.....	1100-0300	
Chicago O'Hare (ORD)	MEM FTZ BDF BDF-STAR.....	0000-2359	
Detroit/Wayne (DTW).....	(RNAV only) BNA IMPEL VHP FWA MIZAR-STAR		
	or		
	BNA CCT VHP FWA MIZAR-STAR.....		
Houston (HOU).....	(DME/DME-IRU or GPS-equipped) MEI AEX ROKIT		
	(RNAV)-STAR.....		
	(Non-advanced NAV only) MEI AEX DAS-STAR		
Houston (IAH)	(Turbojets-DME/DME-IRU or GPS-equipped) MEI		
	AEX TXMEX (RNAV)-STAR		
	or		
	(Non-advanced NAV only) MEI AEX DAS-STAR		
Washington Dulles (IAD).....	ATL J14 J51 FAK COATT-STAR		
Washington Natl (DCA).....	ATL J14 RIC IRONS-STAR.....		
	or		
	(GPS or DME/DME-IRU equipped) ATL J014		
	RIC OJAAY (RNAV)-STAR		
CHARLESTON (CHS)			
Baltimore (BWI).....	J79 TYI J40 RIC OTT-STAR	1100-0400	
	or		
	(GPS or DME/DME-IRU equipped) J79 TYI J40		
	RIC RAVNN (RNAV)-STAR	1100-0400	
Detroit/Wayne (DTW).....	BKW GEMNI-STAR.....		
Houston (HOU).....	(GPS or DME/DME-IRU equipped) MGM J37 SJI		
	COLUMBIA (RNAV)-STAR		
	or		
	(Non-advanced NAV only) MGM J37 SJI AEX		
	DAS-STAR.....		
Houston (IAH)	(DME/DME-IRU or GPS-equipped) MGM J37 SJI		
	WOLDE (RNAV)-STAR.....		
	or		
	(Non-advanced NAV only) MGM J37 SJI		
	GILCO-STAR		
Philadelphia (PHL)	J121 SWL SWL034 RADDS VCN-STAR	1100-0400	

PREFERRED IFR ROUTES

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Terminals	Route	Effective Times (UTC)
Washington Dulles (IAD).....	J55 FLO J207 RDU FAK COATT-STAR..... or (GPS or DME/DME-IRU equipped) J55 FLO J207 RDU FAK BARIN-STAR	
CHARLOTTE (CLT)		
Baltimore (BWI).....	MERIL RDU J52 RIC OTT-STAR..... or (GPS or DME/DME-IRU equipped) MERIL RDU J52 RIC RAVNN (RNAV)-STAR	1100-0300 1100-0300
Boston (BOS).....	MERIL RDU J207 FKN J79 JFK ORW-STAR.....	
Chicago Midway (MDW)	SADIE HNN FWA GOSHEN-STAR..... or SADIE HVQ APE J178 FWA GOSHEN-STAR.....	1100-0300 1100-0300
Chicago O'Hare (ORD).....	(/E/G/R/J/L/Q only) SADIE FLM HEVAN MZZ ROYKO (RNAV)-STAR	1100-0300
	or (non-advanced RNAV only) SADIE FLM HEVAN MZZ MZZ344/33 OXI KNOX-STAR.....	1100-0300
Cincinnati (CVG).....	(RNAV only) HNV JAKIE (RNAV)-STAR..... or (all others) HNV HARDU-STAR	
Denver (DEN)	HARAY SPA SPA270 VVX125 VVX BNA FAM J112 BUM J110 GCK J154 RYLIE DANDD-STAR	1100-0300
Detroit/Wayne (DTW).....	HUGO-DP ROBAY BKW GEMNI-STAR	
Houston (HOU).....	(DME/DME-IRU or GPS-equipped) AHN ATL J14 VUZ AEX ROKIT (RNAV)-STAR..... or (Non-advanced NAV only) AHN ATL J14 VUZ AEX DAS-STAR	
	or (DME/DME-IRU or GPS equipped) AHN MGM J37 SJI Columbia (RNAV)-STAR	
Houston (IAH)	(Turbojets-DME/DME-IRU or GPS-equipped) AHN ATL J14 VUZ AEX TXMEX (RNAV)-STAR..... or (Non-advanced NAV only) AHN ATL J14 VUZ AEX DAS-STAR	
Kennedy (JFK).....	MERIL RDU J209 ORF J121 SIE CAMRN-STAR	
La Guardia (LGA).....	MERIL RDU J55 HPW J191 PXT KORRY-STAR	1100-0300
Louisville (LOU).....	SADIE LOZ V310 IU	1100-0300
Newark (EWR)	RDU FAK DYLIN-STAR..... or (GPS or DME/DME-IRU equipped) RDU FAK PHLBO (RNAV)-STAR	1100-0300
Norfolk (ORF)	MERIL RDU TYI CVI V1 DRONE	1100-0300
Philadelphia (PHL)	MERIL RDU248 J51 FAK DPNT-STAR	1100-0400
Richmond (RIC)	MERIL RDU LVL.....	
Teterboro (TEB).....	(Advanced Nav Only) MERIL RDU FAK JAIKE-STAR	1100-0300
	or (Non-Advanced Nav Only) MERIL RDU FAK BRV AML J227 J49 J70 LVZ LVZ-STAR	1100-0300
Washington Dulles (IAD).....	MERIL RDU248 J51 FAK COATT-STAR.....	1100-0300
Washington Natl (DCA).....	MERIL RDU J52 RIC IRONS-STAR..... or (GPS or DME/DME-IRU equipped) MERIL RDU J52 OJAAY (RNAV)-STAR	
Windsor Locks (BDL)	MERIL RDU J207 FKN J79 JFK DPK DPK-STAR.....	
CHATTANOOGA (CHA)		
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR	0000-2359
	or (non-advanced RNAV only) GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR	0000-2359
CINCINNATI (CVG)		
Albany (ALB)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB.....	

Terminals	Route	Effective Times (UTC)
Allentown (ABE)	(RNAV only) ROCKT (RNAV)—DP ROCKT CADRE AHTIY JST HAR.....	
Atlanta (ATL)	(RNAV only) BLUEGRASS—DP BWG ERLIN (RNAV)—STAR..... or (all others) BLUEGRASS—DP BWG ROME—STAR.....	
Baltimore (BWI).....	V128 YRK HVQ J8 CSN OTT—STAR..... or (GPS or DME/DME—IRU equipped) V128 YRK HVQ J8 CSN RAVNN (RNAV)—STAR	
Birmingham (BHM)	BLUEGRASS—DP TRFWA LVT SYI VUZ	
Boca Raton (BCT).....	(GPS or DME/DME—IRU equipped) BLUEGRASS—DP TRFWA NOTWO WALET HITTR LATHY PRRIE (RNAV)—STAR..... or (GPS or DME/DME—IRU equipped) BLUEGRASS—DP HYK VXV J43 ATL J89 OTK PRRIE (RNAV)—STAR.	
Boston (BOS)	(RNAV only) ROCKT (RNAV)—DP ROCKT CADRE AHTIY PSB HNK ALB GDM GARDNER—STAR.....	
Chicago O'Hare (ORD).....	(Advanced NAV only) JBNCH (RNAV)—DP MIE MZZR ROYKO (RNAV)—STAR	
	or (Non-Advance Nav only) HAGOL (RNAV)—DP DQN FWA KNOX—STAR..... or HAGOL (RNAV)—DP DQN FWA WATSN (RNAV)—STAR	
Dallas/Ft. Worth (DFW)	IIU PXV J131 LIT BYP	
Fort Lauderdale (FLL)	(GPS or DME/DME—IRU equipped) SILK (RNAV)—DP TRFWA NOTWO OTK JINGL (RNAV)—STAR..... or (all others) BLUEGRASS—DP HYK VXV J43 ATL J89 HITTR J75 FORTL—STAR	
Fort Myers (FMY)	(Turbojets, DME/DME—IRU or GPS) KENLN (RNAV)—DP HYK VXV J43 SZW TYNEE (RNAV)—STAR..... or (all others) BLUEGRASS—DP HKY VXV J43 SZW PIE JOSFF—STAR.....	
Fort Myers (RSW)	(GPS or DME/DME—IRU equipped) KENLN (RNAV)—DP HYK VXV J43 SZW TYNEE (RNAV)—STAR.....	1100–0300
	or (all others) BLUEGRASS—DP HYK VXV J43 SZW PIE JOSFF—STAR.....	
Harrisburg (MDT).....	(RNAV only) ROCKT (RNAV)—DP AHTIY JST HAR.....	
Houston (HOU).....	(GPS or DME/DME—IRU equipped) CHCLL (RNAV)—DP BWG J6 LIT J180 SWB ROKIT (RNAV)—STAR..... or (Non-advanced NAV only) BLUEGRASS—DP BWG J6 LIT J180 SWB DAS—STAR	
Houston (IAH).....	(Turbojets—GPS or DME/DME—IRU equipped) LIT CHCLL (RNAV)—DP BWG J6 LIT J180 SWB TXMEX (RNAV)—STAR	
	or (all others) LIT J180 SWB BLUEGRASS—DP BWG J6 DAS—STAR	
Jackson (JAN).....	(all others) BLUEGRASS—DP TRFWA LVT SYI VUZ JAN..... or (RNAV only) SILKS (RNAV)—DP TRFWA LVT SYI VUZ JAN.....	
La Guardia (LGA)	(RNAV only) ROCKT (RNAV)—DP AHTIY PSB MILTON—STAR.....	1000–1800

Terminals	Route	Effective Times (UTC)
Manchester (MHT).....	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB ALB EEN	
Marco Island (MKY)	(all others) BLUEGRASS–DP HYK VXV J43 SZW PIKKR (RNAV)–STAR	
	or (RNAV only) KENLN (RNAV)–DP HYK VXV J43 SZW PIKKR (RNAV)–STAR	
Miami (MIA).....	(Turbojets–GPS or DME/DME–IRU equipped) SILKS (RNAV)–DP TRFWA NOTWO SZW SSCOT (RNAV)–STAR	
	or (all others) BLUEGRASS–DP HYK VXV J43 ATL SZW J43 PIE CYY–STAR	
Mobile (MOB)	(all others) BLUEGRASS–DP TRFWA LVT SYI VUZ SJI	
	or (RNAV only) SILKS (RNAV)–DP TRFWA LVT SYI VUZ SJI	
Naples (APF).....	HYK VXV J43 SZW PIKKR (RNAV)–STAR	
Newark (EWR)	ROD J29 J584 SLT FQM–STAR	
Newburgh (SWF).....	(RNAV only) ROCKT (RNAV)–DP ROCKT CADRE AHTIY PSB J49 HNK DNY V483 FILPS	
New Orleans (MSY)	(all others) BLUEGRASS–DP TRFWA LVT SYI VUZ J22 MEI RYTHM–STAR	
	or (RNAV only) SILKS (RNAV)–DP TRFWA LVT SYI VUZ J22 MEI RHYTHM–STAR	
Orlando Executive (ORL).....	(all others) BLUEGRASS–DP HYK VXV J99 IRQ J85 AMG LEESE–STAR	1100–0300
	or (GPS or DME/DME–IRU equipped) HYK VXV J99 IRQ J85 AMG SHEMA MTATA PIGLT (RNAV)–STAR	1100–0400
Orlando Intl (MCO)	(all others) BLUEGRASS–DP HYK VXV J99 IRQ J85 AMG LEESE–STAR	1100–0300
	or (GPS or DME/DME–IRU equipped) KENLN (RNAV)–DP HYK VXV J99 IRQ J85 AMG BUGGZ (RNAV)–STAR	1100–0400
Philadelphia (PHL)	(RNAV only) ROCKT (RNAV)–DP AHTIY JST BUNTS–STAR	
Phoenix (PHX)	BLUEGRASS–DP IIU PXV J78C IRW J74C CNX ZUN BUNTR	
	or BLUEGRASS–DP IIU PXV J78C ZUN BUNTR	
	or CHCLL–DP IIU PXV J78C ZUN EAGUL	
	or CHCLL–DP IIU PXV J78C IRW J74C CNX ZUN EAGUL	
Portland (PWM).....	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB J49 ALB ENE	
Providence (PVD)	(RNAV only) ROCKT (RNAV)–DP AHTIY PSB J49 HNK TEDDY–STAR	
Sarasota/Bradenton (SRQ).....	(all others) BLUEGRASS–DP HYK VXV J43 SZW CLAMP–STAR	
	or (RNAV only) KENLN (RNAV)–DP HYK VXV J43 SZW CLAMP–STAR	
Tampa (TPA)	HYK VXV J43 SZW DARBS–STAR	
	or (GPS or DME/DME–IRU equipped) KENLN (RNAV)–DP HYK VXV J43 SZW FOXXX (RNAV)–STAR	

Terminals	Route	Effective Times (UTC)
Washington Dulles (IAD).....	(all others) RHOMM-DP HVQ ROYIL-STAR or (RNAV only) GIPLE (RNAV)-DP HVQ SHANON (RNAV)-STAR.....	
Washington Natl (DCA).....	V128 YRK HVQ WZRRD-STAR..... or V128 YRK HVQ ELDEE (RNAV)-STAR.....	
West Palm Beach (PBI)	(GPS or DME/DME-IRU equipped) SILKS RNAV-DP TRFWA NOTWO OTK WLACE (RNAV-STAR)..... or (GPS or DME/DME-IRU equipped) KENLN (RNAV)-DP HYK VXV J43 ATL J89 OTK WLACE (RNAV-STAR).....	
Wilkes Barre/Scranton (AVP)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE ANTIY PSB LVZ.....	
Windsor Locks (BDL)	(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB RKA SWEDE SWEDE-STAR.....	
DAYTONA BEACH (DAB)		
Charlotte (CLT).....	CRG J51 SAV J207 FLO CTF-STAR..... or (Turbojets-GPS or DME/DME-IRU equipped) CRG J51 SAV HUSTN (RNAV)-STAR	
FORT LAUDERDALE METRO AREA (FLL, FXE, PMP)		
Albany (ALB).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130.....	
Atlanta (ATL)	ORL J81 CHESN SINCA-STAR	1000-0300
	or (RNAV only) ORL J81 CHESN CANUK (RNAV) -STAR	1000-0300
Baltimore (BWI)	(at or below 310) ORL J53 CRG J51 SAV J55 CHS J165 RIC OTT-STAR	1000-0300
	or (Water-Turbojets) ZAPPA PERMT AR16 ILM J40 RIC OTT-STAR	1000-0300
	or (at or above 330) J113 CRG J51 SAV J55 CHS J165 RIC OTT-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) (at or below 310) ORL J53 CRG J51 SAV J55 CHS J165 RIC RAVNN (RNAV)-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) (at or above 330) J113 CRG J151 SAV J55 CHS J165 RIC RAVNN (RNAV)-STAR	1000-0300
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) ZAPPA PERMT AR16 ILM J40 RIC RAVNN (RNAV)-STAR	1000-0300
Bedford (BED).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
	or (Water-Turbojets) (Alternate) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Beverly (BVY).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
	or	

PREFERRED IFR ROUTES		415
Terminals	Route	Effective Times (UTC)
Boston (BOS)	(Water-Turbojets) (Alternate) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK ORW-STAR	1000-0300
	or (at or below 310) ORL J53 CRG J51 SAV J55 CHS J79 JFK ORW-STAR	1000-0300
	or (at or above 330) J113 CRG J51 SAV J55 CHS J79 JFK ORW-STAR	1000-0300
Bridgeport (BDR)	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Charlotte (CLT)	(at or below 310) ORL J53 CRG J51 SAV J207 FLO CTF-STAR	1000-0300
	or (at or above 330) J113 CRG J51 SAV J207 FLO CTF-STAR	1000-0300
	or (at or above 330-Turbojets-GPS or DME/DME-IRU equipped) J113 CRG J51 SAV HUSTN (RNAV)-STAR	1000-0300
	or (at or below 310-Turbojets-GPS or DME/DME-IRU equipped) ORL J53 CRG J51 SAV HUSTN (RNAV)-STAR	1000-0300
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)-STAR	1000-0300
	or (non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1000-0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR	1000-0300
	or (non-advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR	1000-0300
	(RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR	1000-0300
Cincinnati (CVG)	(all others) CTY J91 VXV HARDU-STAR	1000-0300
Cleveland (CLE)	or (RNAV) only) CTY J91 VXV JAKIE (RNAV)-STAR	
	J113 LRG J53 IRQ J85 HVQ J85 TVT040 KEATN KEATN-STAR	1000-0300
Columbus (CMH)	J20 ORL J81 IRQ J53 SPA J85 HVQ HNN BREMN-STAR	1000-0300
Cross City (CTY)	J85 LLAKE CTY	1030-0300
Dallas/Fort Worth (DFW)	or CTY	
	LAL J73 SZW J2 CEW J50 AEX CQY	1000-0300
Danbury (DXR)	or SRQ Q100 REDFN Q105 HRV J58 AEX CQY	1000-0300
	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR	
Daytona Beach (DAB)	J20 LLNCH MLB V3	1030-0300
Denver (DEN)	LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE DANDD-STAR	1030-0300
	or SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL-STAR	1030-0300
	J113 CRG J53 SPA HNN WEEDA-STAR	
Detroit/Wayne (DTW)		
Detroit Satellites:		
Ann Arbor (ARB)	ORL J81 IRQ J99 VXV J43 FLM DQN CRUXX- STAR	

416	PREFERRED IFR ROUTES	
Terminals	Route	Effective Times (UTC)
Pontiac (PTK), Windsor (CYQG)	ORL J81 IRQ J85 DJB LLEE0-STAR	
Willow Run (YIP)	ORL J81 IRQ J99 VXV J43 FLM DQN CRUXX-STAR	1000-0300
Young (DET).....	ORL J81 IRQ J85 DJB LLEE0-STAR.....	1000-0300
East Hampton (HTO).....	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121	
Farmingdale (FRG).....	(Water) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	
Gainesville (GNV).....	J85 LLAKE LAL GNV or LAL GNV	1030-0300
Groton/New London (GON).....	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO	
Hartford (HFD)	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD V1.....	
Houston (IAH).....	(GPS or DME/DME-IRU equipped) SRQ Q100 LEV WOLDE (RNAV)-STAR.....	1000-0300
	or (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)-STAR	1000-0300
	or (Non-advanced NAV only) LAL J73 SZW J2 SJI GILCO-STAR.....	1000-0300
Houston (HOU)	(GPS or DME/DME-IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)-STAR.....	1000-0300
	or (Non-advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS-STAR	
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE-STAR	1000-0300
Islip (ISP).....	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Jacksonville (CRG)	ORL J53.....	1030-0300
Kennedy (JFK).....	(Water-Turbojets) ZAPPA WOLFO AR18 WETRO CEBEE SWL J121 SIE CAMRN-STAR	1000-0300
	or (at or below 310) ORL J53 CRG J51 SAV J55 CHS J121 SIE CAMRN-STAR	1000-0300
	or (at or above 330) J113 CRG J51 SAV J55 CHS J121 SIE CAMRN-STAR	1000-0300
La Guardia (LGA).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY-STAR	1000-0300
	or (at or below 310) ORL J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY-STAR	1000-0300
	or (at or above 330) J113 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY-STAR	1000-0300
Lawrence (LWM)	(Water-Turbojets) (Alternate) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	or (Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
Louisville (SDF).....	CTY J91 ATL HCH DARBY-STAR	1000-0300
Manchester (MHT).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK ALB EEN.....	
Melbourne (MLB)	J113 LLNCH MLB	1030-0300
Minneapolis (MSP).....	CTY J91 ATL J89 BAE EAU-STAR.....	1000-0300
Montreal (CYUL).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR	
Nantucket (ACK)	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO V46.....	
SE. 23 SEP 2010 to 18 NOV 2010		

Terminals	Route	Effective Times (UTC)
Nashville (BNA).....	CTY J91 ATL GQO VOLLS-STAR.....	1000-0300
Newark (EWR).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM J109 FAK DYLIN-STAR.....	1000-0300
	or (at or below 310) ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN-STAR	1000-0300
	or (at or above 330) J113 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN-STAR.....	1000-0300
	or (GPS or DME/DME-IRU equipped-at or above 330) J113 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped-at or below 310) ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) ZAPPA PERMT AR16 ILM J109 FAK PHLBO (RNAV)-STAR	1000-0300
Newburgh (SWF).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
New Haven (HVN).....	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New Orleans (MSY)	SRQ Q100 REDFN Q105 HRV.....	1000-0300
	or LAL J73 SZW J2	1000-0300
Ocala (OCF).....	J85 LLAKE LAL	1030-0300
	or LAL	1030-0300
Orlando (MCO)	J113 LLNCH GOOFY-STAR.....	1030-0300
Overwater Routes to the Northeast.....	(Water-Turbojets) ZAPPA WOLFO AR18 DIW	1030-0300
Overwater Routes to the Northwest	LBV J616	1030-0300
	or LBV J616 SRQ Q100 REDFN Q105 HRV J58	1030-0300
Philadelphia (PHL).....	J113 CRG J51 SAV J55 CHS J121 SWL SWL034 RADDs CEDAR LAKE-STAR.....	1000-0300
	or (Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL RADDs CEDAR LAKE-STAR	1000-0300
Pittsburgh (PIT).....	(at or below 310) ORL J53 CRG J51 CAE PSK EKN IHD NESTO-STAR	1000-0300
	or (at or above 330) J113 CRG J51 CAE PSK EKN IHD NESTO-STAR	1000-0300
Poughkeepsie (POU).....	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
Providence (PVD)	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)-STAR.....	
Raleigh-Durham (RDU)	(at or below 310) ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE-STAR.....	1000-0300
	or (at or above 330) J113 CRG J51 SAV J55 CHS J174 ILM BRADE-STAR	1000-0300
	or (Water-Turbojets) ZAPPA PERMT AR16 ILM BRADE-STAR.....	1000-0300
St Louis (STL).....	THNDR CTY J151 VISQA QBALL-STAR.....	
	or (/E, /G, /R, /J, /L, /Q) THNDR KPASA Q110 FEONA VUZ J151 VISQA QBALL-STAR	
Sarasota/Bradenton (SRQ)	LBV J43 ROGAN	1030-0300
	or ROGAN	1030-0300

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PREFERRED IFR ROUTES

Terminals	Route	Effective Times (UTC)
Springfield/Chicopee (CEF)	(Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK-STAR ..	
Tallahassee (TLH)	J85 LLAKE LAL SZW	1030-0300
	or	
	LAL	1030-0300
Tampa (TPA)	J85 THNDR LBV BRDGE-STAR	1030-0300
	or	
	BRDGE BRDGE-STAR.....	1030-0300
	or	
	(GPS or DME/DME-IRU equipped) DEAKK DEAKK (RNAV)-STAR	1030-0300
	or	
	(GPS or DME/DME-IRU equipped) J85 THNDR LBV DEAKK (RNAV)-STAR	1030-0300
Toronto (CYYZ)	(Water-Turbojets) ZAPPA PERMT AR16 ILM J109 BUF YOUTH-STAR	
Vero Beach (VRB).....	J113 ARKES VRB	1030-0300
Washington Dulles (IAD)	(at or below 310) ORL J53 CRG J51 SAV J207 RDU FAK COATT-STAR	1000-0300
	or	
	(at or below 310-GPS or DME/DME-IRU equipped) ORL J53 CRG J51 SAV J207 RDU FAK BARIN-STAR	1000-0300
	(at or above 330-GPS or DME/DME-IRU equipped) J113 CRG J51 SAV J207 RDU FAK BARIN-STAR.....	1000-0300
	or	
	(at or above 330) J113 CRG J51 SAV J207 RDU FAK COATT-STAR	1000-0300
	or	
	(Water) ZAPPA PERMT AR16 ILM J109 FAK COATT-STAR	1000-0300
	or	
	(Water-GPS or DME/DME-IRU equipped) ZAPPA PERMT AR16 ILM J109 FAK BARIN-STAR	1000-0300
Washington Natl (DCA)	(at or below 310) ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS-STAR.....	1000-0300
	or	
	(at or above 330) J113 CRG J51 SAV J55 CHS J165 RIC IRONS-STAR.....	1000-0300
	or	
	(Water-Turbojets) ZAPPA PERMT AR16 ILM J40 RIC IRONS-STAR.....	1000-0300
	or	
	(GPS or DME/DME-IRU equipped-at or below 310) ORL J53 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)-STAR	1000-0300
	or	
	(GPS or DME/DME-IRU equipped-at or above 330) J113 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)-STAR	1000-0300
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) ZAPPA PERMT AR16 ILM J40 RIC OJAAY (RNAV)-STAR	1000-0300
Westfield (BAF)	(Water-Turbojets) ZAPPA PERMIT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK-STAR ..	
Westhampton Beach (FOK).....	(Water-Turbojets) ZAPPA WOLFO AR18 WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO-STAR	
	or	
	(Water-Turboprops) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR.....	

Terminals	Route	Effective Times (UTC)
Wilmington (ILM)	(Water–Turbojets–Overwater Routes to the NE) ZAPPA PERMT AR16	
Windsor Locks (BDL)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK–STAR..	
Worcester (ORH)	(Water–Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD	
FORT MYERS METRO AREA (RSW, FMY, APF, MKY, PGD)		
Daytona Beach (DAB)	ORL	1030–0300
Gainesville (GNV)	LAL	1030–0300
Houston (HOU)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or (GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)–STAR	
	or (Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	
Houston (IAH)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or (GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or (Non–advanced NAV only) LAL J73 SZW J2 SJI GILCO–STAR	1000–0300
Jacksonville (CRG)	ORL J53	1030–0300
Miami (MIA)	(all others) CYY CYY–STAR	1030–0300
	or (/E, /G, /R, /J, /L, /Q) CYY DEEDS (RNAV)–STAR	1030–0300
Ocala (OCF)	LAL	1030–0300
Orlando (MCO)	LAL MINEE–STAR	1030–0300
	or DOWNN MINEE–STAR	1030–0300
	or LAL	1030–0300
	or (Turbojets) ORL	1030–0300
	or (Turbojets) DOWNN MINEE–STAR	1030–0300
Tallahassee (TLH)	LAL	1030–0300
Tampa (TPA)	RSW BRDGE–STAR	1030–0300
	or V7 ROGAN J43 PIE	1030–0300
	or (GPS or DME/DME–IRU equipped) DEAKK (RNAV)–STAR	1030–0300
Westbound destinations	SRQ Q100 LEV J86	
	or BAGGS Q102 LEV J86	
	or SRQ 100 REDFN Q105 HRV J58	
From PAGE FLD (FMY) only:		
Cincinnati (CVG)	(RNAV only) LAL CTY J91 VXV JAKIE (RNAV)–STAR or (all others) LAL CTY J91 ATL VXV HARDU–STAR....	
Cleveland Metro (CLE)	LAL CTY J91 HNN TVT KEATN–STAR	
Columbus (CMH)	LAL CTY J91 HNN BREMN–STAR	
Detroit/Wayne (DTW)	LAL CTY J91 VXV J43 FLM DQN MIZAR–STAR	
Detroit Satellites:		
Ann Arbor (ARB), Willow Run (YIP)	LAL CTY J91 VXV J43 FLM DQN CRUX–STAR	
Pontiac (PTK), Windsor (CYQG), Young (DET)	LAL J73 J119 TAY J85 DJB LLEEO–STAR	
La Guardia (LGA)	ORL J53 CRG J51 SAV J207 J55 HPW J191 PXT KORRY–STAR	1100–0300

420	PREFERRED IFR ROUTES		Effective Times (UTC)
Terminals	Route		
Miami (MIA).....	(Turbojets—GPS or DME/DME—IRU equipped) CYC SSCOT (RNAV)—STAR		
Newark (EWR)	ORL J53 CRG J51 FAK DYLIN—STAR		1100—0400
	or (GPS or DME/DME—IRU equipped) ORL J53 CRG J51 FAK PHLBO(RNAV)—STAR		1100—0400
Washington Natl (DCA).....	ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS—STAR		1000—0300
From SW FLORIDA INTL (RSW) only:			
Atlanta (ATL).....	RSW LAL J73 SZW LGC—STAR		1000—0300
	or (RNAV only) RSW LAL J73 SZW HONIE (RNAV)—STAR		1000—0300
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) RSW LAL CTY J91 ATL J89 IIU OKK FISSK (RNAV)—STAR		1000—0300
	or (non—advanced RNAV only) RSW LAL CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT		1000—0300
Chicago O'Hare (ORD).....	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)—STAR		1000—0300
	or (non—advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 KNOX—STAR		1000—0300
Cleveland (CLE).....	RSW LAL J73 J119 TAY J85 IRQ J85 HVQ J85 TVT040 KEATN KEATN—STAR		
Columbus (CMH)	RSW LAL J73 J119 TAY J85 HVQ HNN BREMN—STAR		1000—0300
Dallas/Ft. Worth (DFW)	RSW SRQ Q100 REDFN Q105 HRV J58 AEX CQY ..		
	or RSW LAL J73 SZW J2 CEW J50 AEX CQY		1000—0300
Denver (DEN)	RSW SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL—STAR		
	or RSW LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE DANDD—STAR		
Detroit/Wayne (DTW)	JOCKS ORL J53 SPA HNN WEEDA—STAR		
Detroit Satellites:			
Ann Arbor (ARB), Willow Run (YIP)	LAL CTY J91 VXV J43 FLM DQN CRUX—STAR		
Pontiac (PTK), Windsor (CYQG), Young (DET)	LAL J73 J119 TAY J85 DJB LLEE—STAR		
Indianapolis (IND)	RSW LAL CTY J91 ATL J89 IIU DECEE—STAR		
Louisville (SDF)	RSW LAL CTY J91 ATL HCH DARBY—STAR		
Miami (MIA).....	(Turbojets—GPS or DME/DME—IRU equipped) CYC SSCOT (RNAV)—STAR		
Minneapolis (MSP)	RSW LAL CTY J91 ATL J89 BAE EAU—STAR		1000—0300
Nashville (BNA)	RSW LAL CTY J91 ATL GQO VOLLS—STAR		
Pittsburgh (PIT)	RSW ORL J53 CRG J51 CAE PSK EKN IHD NESTO—STAR		1000—0300
Raleigh—Durham (RDU).....	RSW ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE—STAR		
St Louis (STL)	LAL J73 SZW J41 VUZ STL		1100—0300
Washington Dulles (IAD).....	RSW ORL J53 CRG J51 SAV J207 RDU FAK COATT—STAR		1000—0300
	or (GPS or DME/DME—IRU equipped) RSW ORL J53 CRG J51 SAV J207 RDU FAK BARIN—STAR		1000—0300
Washington Natl (DCA)	RSW ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS—STAR		1000—0300
	or (GPS or DME/DME—IRU equipped) RSW ORL J53 CRG J51 SAV J55 CHS J165 RIC OJAAY (RNAV)—STAR		1000—0300

Terminals	Route	Effective Times (UTC)
GREENSBORO (GSO)		
Chicago Midway (MDW)	PSK HNN FWA GOSHEN-STAR..... or PSK HVQ APE J178 FWA GOSHEN-STAR.....	1100-0300 1100-0300
Chicago O'Hare (ORD).....	(/E/G/R/J/L/Q only) BOTTM FLM HEVAN MZZ ROYKO (RNAV)-STAR or (non-advanced RNAV only) BOTTM FLM HEVAN MZZ MZZ344/33 OXI KNOX-STAR.....	1100-0300 1100-0300 1100-0300
Cincinnati (LUK)	PSK HVQ FLM	0700-2300
Detroit/Wayne (DTW).....	BOTTM BKW GEMNI-STAR.....	
La Guardia (LGA).....	J14 PXT KORRY-STAR.....	
Louisville (SDF).....	VXV J99 GHATS EWO IJU	0700-2300
Newark (EWR)	J14 J51 FAK DYLIN-STAR..... or (GPS or DME/DME-IRU equipped) J14 J51 FAK PHLBO (RNAV)-STAR	
GREER (GSP)		
Detroit/Wayne (DTW).....	SPA HMV HNN WEEDA-STAR	
HUNTSVILLE (HSV)		
Chicago O'Hare (ORD)	MEM FTZ BDF BDF-STAR.....	0000-2359
Detroit/Wayne (DTW).....	(RNAV only) BNA IMPEL VHP FWA MIZAR-STAR or BNA CCT VHP FWA MIZAR-STAR.....	
JACKSONVILLE METRO AREA (JAX)		
Baltimore (BWI).....	J51 SAV J55 CHS J79 TYI J40 RIC OTT-STAR	1100-0400
	or (GPS or DME/DME-IRU equipped) J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)-STAR	1100-0400
Charlotte (CLT).....	J53 IRQ UNARM-STAR	
	or J51 SAV J207 FLO CTF-STAR..... or (Turbojets-GPS or DME/DME-IRU equipped) J51 SAV HUSTN (RNAV)-STAR	
	or (Turbojets-GPS or DME/DME-IRU equipped) J53 IRQ ADENA (RNAV)-STAR	
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) SAV CAE HMV FLM HEVAN MZZ ROYKO (RNAV)-STAR.....	0000-2359
	or (Non-advanced RNAV only) SAV CAE HMV FLM HEVAN MZZ MZZ344/33 OXI KNOX-STAR	0000-2359
Detroit/Wayne (DTW)	NOWAY J53 SPA HNN WEEDA-STAR	
Houston (HOU)	(GPS or DME/DME-IRU equipped) TAY J2 SJI COLUMBIA (RNAV)-STAR	
	or (Non-advanced NAV only) TAY J2 CEW J50 AEX DAS-STAR.....	
Houston (IAH)	(GPS or DME/DME-IRU equipped) TAY J2 SJI WOLDE (RNAV)-STAR or (Non-advanced NAV only) TAY J2 SJI GILCO-STAR.....	
La Guardia (LGA)	J51 SAV J207 RDU J55 HPW J191 PXT KORRY-STAR.....	1100-0400
Newark (EWR)	CRG J51 FAK DYLIN-STAR..... or (GPS or DME/DME-IRU equipped) CRG J51 FAK PHLBO (RNAV)-STAR	
Philadelphia (PHL)	J51 SAV J55 CHS J121 SWL SWL034 RADD VCN-STAR.....	1100-0400

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Terminals		Route	Effective Times (UTC)
Tampa (TPA)		TAY LZARD-STAR	
		or	
		(GPS or DME/DME-IRU equipped) TAY DADES	
		(RNAV)-STAR	
Washington Dulles (IAD).....		SAV CHS J165 J109 FAK COATT-STAR	1100-0400
		or	
		(GPS or DME/DME-IRU equipped) SAV J207 RDU	
		FAK BARIN-STAR	1100-0400
Washington Natl (DCA).....		J51 SAV J55 CHS J165 RIC IRONS-STAR	1100-0400
		or	
		(GPS or DME/DME-IRU equipped) J51 SAV J55	
		CHS J165 RIC OJAAY (RNAV)-STAR	1100-0400
KEY WEST METRO AREA (NQX)			
Daytona Beach (DAB).....		RSW ORL	1030-0300
Fort Lauderdale (FLL)		(all others) EYW DVALL-STAR	1030-0300
		or	
		(/E, /G, /R, /J, /L, /Q) EYW CORSO	
		(RNAV)-STAR	1030-0300
Fort Myers (RSW)			1030-0300
Melbourne (MLB).....		PHK.....	1030-0300
Miami (MIA)		(all others) EYW DVALL-STAR	1030-0300
		or	
		(/E, G, /R, /J, /L, /Q) EYW CORSO (RNAV)-STAR .	1030-0300
Orlando (MCO)		RSW MINEE-STAR	1030-0300
Palm Beach (PBI)		PHK.....	1030-0300
Sarasota/Bradenton (SRQ).....		RSW V7 ROGAN	1030-0300
Tallahassee (TLH)		RSW LAL	1030-0300
		or	
		(at or above FL360) RSW TEPEE.....	1030-0300
Tampa (TPA)		RSW BRDGE-STAR	1030-0300
		or	
		(GPS or DME/DME-IRU equipped) RSW DEAKK	
		(RNAV)-STAR	1000-0300
Vero Beach (VRB)		PHK.....	1030-0300
KNOXVILLE (TYS)			
Chicago O'Hare (ORD)		(/E/G/R/J/L/Q only) VXV HEVAN MZZ ROYKO	
		(RNAV)-STAR	0000-2359
		or	
		(non-advanced RNAV only) VXV HEVAN MZZ	
		MZZ344/33 OXI KNOX-STAR	0000-2359
Cleveland Metro (CLE)		VXV J91 BULEY J91 HNN TVT KEATN-STAR	
Detroit/Wayne (DTW).....		VXV J91 HNN WEEDA-STAR	
La Guardia (LGA)		BKW J42 GVE KORRY-STAR.....	
LAKELAND METRO AREA			
(LAL, GIF, BOW, BKV, X16)			
Fort Lauderdale (FLL).....		(Jets only-all others) RSW FORTL-STAR	
Key West Intl (EYW).....		RSW J41	1030-0300
Miami (MIA).....		(Turbojets-GPS or DME/DME-IRU equipped) CYV	
		SSCOT (RNAV)-STAR	
West Palm Beach (PBI)		(Turbojets-GPS or DME/DME-IRU equipped)	
		WLACE (RANV)-STAR	1030-0300
LEXINGTON (LEX)			
Atlanta (ATL)		(RNAV only) AZQ SOT FLCON (RNAV)-STAR	
Cleveland (CLE)		CVG ABERZ-STAR	
LOUISVILLE METRO AREA (LOU, SDF)			
From BOWMAN FIELD (LOU) only			
Dallas/Ft Worth (DFW)		PXV J131 LIT BYP	
Phoenix (PHX)		FAM J78 ABQ J18.....	
		or	
		FAM J78 IRW J74 SJN J18.....	

Terminals	Route	Effective Times (UTC)
From LOUISVILLE INTL (SDF) only		
Atlanta (ATL)	MYS BWG ROME-STAR	
	or	
	(RNAV only) MYS BWG RMG ERLIN (RNAV)-STAR	
Cleveland Metro (CLE)	CVG ZABER-STAR	
Houston (HOU)	(GPS or DME/DME-IRU equipped) SWB ROKIT	
	(RNAV)-STAR	
	or	
	(Non-advanced NAV only) SWB DAS-STAR	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) SWB	
	TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) SWB DAS-STAR	
MEMPHIS (MEM)		
Baltimore (BWI)	J42 BKW J147 CSN OTT-STAR	
	or	
	(GPS or DME/DME-IRU equipped) J42 BKW J147	
	CSN RAVNN (RNAV)-STAR	
Boca Raton (BCT)	(GPS or DME/DME-IRU equipped) MGM SZW	
	PRRIE (RNAV)-STAR	
Boston (BOS)	J42 BNA J46 VXV SPA SPA100 J209 RDU J207	
	FKN J79 JFK ORW-STAR	
	or	
	J118 SPA SPA100 J209 RDU J207 FKN J79 JFK	
	ORW-STAR	
Cincinnati (CVG)	(RNAV only) J29 PXV SARGO (RNAV)-STAR	
	or	
	(all others) J29 PXV MOSEY-STAR	
Cleveland (CLE)	PXV ZABER-STAR	
Denver (DEN)	RZC PER GCK J154 RYLIE DANDD-STAR	
Detroit/Wayne (DTW)	J29 PXV VHP FWA MIZAR-STAR	
Houston (HOU)	(DME/DME-IRU or GPS-equipped) LIT J180 SWB	
	ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB	
	DAS-STAR	
Houston (IAH)	(Turbojets-DME/DME-IRU or GPS-equipped) LIT	
	J180 SWB TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) LIT J180 SWB	
	DAS-STAR	
Kennedy (JFK)	J118 SPA SPA100 J209 ORF J121 SIE	
	CAMRN-STAR	
La Guardia (LGA)	J42 GVE KORRY-STAR	
Louisville (SDF)	BNA BNA037 BARRY EWO	
	or	
	Q29 SIDAE CHERI CHERI-STAR	
Minneapolis (MSP)	J35 STL IOW ALO KASPR-STAR	1300-0300
Newark (EWR)	J42 GVE DYLIN-STAR	
	or	
	(GPS or DME/DME-IRU equipped) J42 GVE	
	PHLBO (RNAV)-STAR	
Orlando (ORL/MCO)	MGM SZW J43 PIE LAL	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) MGM SZW J43	
	PIE COSTR (RNAV)-STAR	1100-0400
	or	
	J41 MGM S2W J43 PIE LAL	
Philadelphia (PHL)	J42 GVE DPNT-STAR	
Pittsburgh (PIT)	J29 PXV IIU HNN WISKE-STAR	
Sarasota/Bradenton (SRQ)	MGM SZW CLAMP-STAR	
Tampa (TPA)	MGM SZW DARBS-STAR	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) MEM SZW	
	FOXX (RNAV)-STAR	1100-0400

Terminals	Route	Effective Times (UTC)
Washington Dulles (IAD).....	J42 BKW ROYIL–STAR.....	1100–1830
	or	
	PXV IIU J8 HVQ SHNON (RNAV)–STAR	1830–2230
	or	
	J42 BKW SHNON (RNAV)–STAR	2230–0300
	or	
	PXV IIU J8 HVQ ROYIL–STAR	1830–2230
Washington Natl (DCA).....	J42 BKW WZRRD–STAR.....	
	or	
	(GPS or DME/DME–IRU equipped) J42 BKW	
	ELDEE (RNAV)–STAR.....	
West Palm Beach (PBI)	MGM SZW WLACE (RNAV)–STAR.....	
Windsor Locks (BDL)	J42 BNA J46 VXV SPA SPA100 J209 RDU J207	
	FKN J79 JFK DPK DPK–STAR	
MIAMI METRO AREA		
(MIA, HWO, OPF, TMB, HST, X51)		
Albany (ALB).....	(Water–Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 JOANI LGA LGA055 TRUDE	
	V487 CANAN V130	
Atlanta (ATL)	J81 CHESN SINCA–STAR.....	1000–0300
	or	
	(RNAV only) J81 CHESN CANUK (RNAV)–STAR	1000–0300
Baltimore (BWI)	J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC	
	OTT–STAR	1000–0300
	or	
	(Water–Turbojets) VALLY PERMT AR16 ILM J40	
	RIC OTT–STAR	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J53 CRG J51	
	SAV J55 CHS J79 TYI J40 RIC RAVNN	
	(RNAV)–STAR.....	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) VALLEY PERMT	
	AR16 ILM J40 RIC RAVNN (RNAV)–STAR.....	1000–0300
Bedford (BED).....	(Water–Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 JFK DPK MAD HFD	
	GRAYM–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J174 HTO ORW	
	GRAYM–STAR	
Beverly (BVY).....	(Water–Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 JFK DPK MAD HFD	
	GRAYM–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J174 HTO ORW	
	GRAYM–STAR	
Boston (BOS)	J53 CRG J51 SAV J55 CHS J79 JFK ORW–STAR ...	1000–0300
	or	
	(Water–Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 JFK ORW–STAR	
Chicago Midway (MDW).....	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK	
	FISSK (RNAV)–STAR.....	1000–0300
	or	
	(non–advanced RNAV only) CTY J91 ATL J89 IIU	
	OKK V285 CLEFT OXI CGT	1000–0300
Chicago O’Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT	
	GLAZR HOPAP VOSTK HEVAN MZZ ROYKO	
	(RNAV)–STAR.....	1000–0300
	or	
	(non–advanced RNAV only) LAL CTY J91 ATL	
	CADIT GLAZR HOPAP VOSTK HEVAN MZZ	
	MZZ344/33 OXI KNOX–STAR.....	1000–0300

Terminals	Route	Effective Times (UTC)
Cincinnati (CVG).....	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
	or	
	(all others) CTY J91 VXV HARDU–STAR.....	1000–0300
Columbus (CMH).....	J81 IRQ J53 SPA J85 HVQ HNN BREMN–STAR	
Cross City (CTY).....	LAL CTY	1030–0300
Dallas/Fort Worth (DFW)	J616 SRQ Q100 REDFN Q105 HRV J58 AEX CQY .	1000–0300
	or	
	LAL J73 SZW J2 CEW J50 AEX CQY.....	1000–0300
Danbury (DXR)	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 SIE V139 RICED	
	RICED–STAR.....	
Daytona Beach (DAB)	J53 HEDLY MLB V3 or MLB V3.....	1030–0300
Denver (DEN).....	LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE	
	DANDD–STAR	
Detroit/Wayne (DTW).....	J53 SPA HNN WEEDA–STAR.....	
Detroit Satellites:		
Ann Arbor (ARB),	J81 IRQ J99 VXV J43 FLM DQN CRUXX–STAR.....	
Detroit (DET),		
Pontiac (PTK),		
Windsor (CYQG)		
Willow Run (YIP)		
Ann Arbor (ARB)	J81 IRQ J85 DJB LLEEO–STAR	
Fort Pierce (FPR).....	J53 HEDLY or FPR	1030–0300
Farmingdale (FRG).....	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Gainesville (GNV).....	Direct	1030–0300
Hampton (HTO).....	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121	
Hartford (HFD)	(Water–Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 JFK DPK MAD V1.....	
Houston Intcntl (IAH)	(DME/DME–IRU or GPS–equipped) LAL J73 SZW	
	J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 SJI	
	GILCO–STAR	1000–0300
	or	
	J616 SRQ Q100 LEV WOLDE (RNAV)–STAR.....	1000–0300
Houston Hobby (HOU).....	(DME/DME–IRU or GPS–equipped) LAL J73 SZW	
	J2 SJI COLUMBIA (RNAV)–STAR.....	1000–0300
	or	
	(GPS or DME/DME–IRU equipped) J616 SRQ	
	Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or	
	(Non–advanced NAV only) LAL J73 SZW J2 CEW	
	J50 AEX DAS–STAR	1000–0300
Indianapolis (IND)	LAL CTY J91 ATL J89 IIU DECEE–STAR	1000–0300
Islip (ISP).....	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 SARDI CCC	
Jacksonville (JAX).....	J53	1030–0300
Kennedy (JFK).....	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 SIE CAMRN–STAR	1000–0300
	or	
	J53 CRG J51 SAV J55 CHS J121 SIE	
	CAMRN–STAR	1000–0300
La Guardia (LGA).....	(Water) VALLY PERMT AR16 ILM J40 TYI HPW	
	J191 PXT KORRY–STAR.....	1000–0300
	or	
	J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT	
	KORRY–STAR.....	1000–0300
Lawrence (LWM)	(Water–Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 JFK DPK MAD HFD	
	GRAYM–STAR	
	or	
	(Water–Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J174 HTO ORW	
	GRAYM–STAR	

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PREFERRED IFR ROUTES

Terminals	Route	Effective Times (UTC)
Louisville (SDF).....	CTY J91 ATL HCH DARBY-STAR	1000-0300
Manchester (MHT).....	(Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK ALB EEN.....	
Melbourne (MLB)	J53 HEDLY or DRCT.....	1030-0300
Minneapolis (MSP).....	CTY J91 ATL J89 BAE EAU-STAR	1000-0300
Montreal (CYUL).....	VALLY PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR	
Nantucket (ACK)	(Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO V46.....	
Nashville (BNA).....	CTY J91 ATL GQO VOLLS-STAR	1000-0300
Newark (EWR).....	(Water) VALLY PERMT AR16 ILM J109 FAK DYLIN-STAR	
	or J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)-STAR.....	1000-0300
	or (GPS or DME/DME-IRU equipped) VALLY PERMT AR16 ILM J109 FAK PHLBO (RNAV)-STAR	1000-0300
Newburgh (SWF).....	(Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
New Haven (HVN).....	(Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED.....	
New London/Groton (GON)	(Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO	
New Orleans (MSY)	LAL J73 SZW J2	1000-0300
	or (Water) J616 SRQ Q100 REDFN Q105 HRV	1000-0300
Ocala (OCF).....	J73 LAL or DRCT	1030-0300
Orlando (MCO).....	J53 PHK GOOFY-STAR	1030-0300
	or (PHK GOOFY-STAR	
Overwater Routes to the Northeast	(Water-Turbojets) VALLY PERMT AR16 ILM.....	
	or (Water-Turbojets) VALLY WOLFO AR18 DIW	
Overwater Routes to the Northwest	J616 SRQ Q100 LEV J86	1030-0300
	or J616 SRQ Q100 REDFN Q105 HRV J58.....	1030-0300
Philadelphia (PHL).....	J53 CRG J51 SAV J55 CHS J121 SWL SWL034 RADDs VCN-STAR.....	1000-0300
	or (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL RADDs VCN-STAR	1000-0300
Pittsburgh (PIT).....	J53 CRG J51 CAE PSK EKN IHD NESTO-STAR.....	1000-0300
Port Columbus Intl (CMH).....	BNA IIU GAIL (RNAV)-STAR	
Poughkeepsie (POU).....	(Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
Providence (PVD)	(Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO JORDAN (RNAV)-STAR.....	
Raleigh-Durham (RDU)	(Water-Turbojets) VALLY PERMT AR16 ILM BRADE-STAR	1000-0300
	or J53 CRG J51 SAV J55 CHS J174 ILM BRADE-STAR	1000-0300
St Louis (STL).....	WINCO CTY J151 VISQA QBALL-STAR	1000-0300
	or (/E, /G, /R, /J, /L, /Q) WINCO KPASA Q110 FEONA VUZ J151 VISQA QBALL-STAR	
Sarasota/Bradenton (SRQ)	J616	1030-0300

Terminals	Route	Effective Times (UTC)
Tallahassee (TLH)	J73	
	or	
	LAL	1030-0300
Tampa (TPA)	J43 BRDGE BRDGE-STAR	1030-0300
	or	
	(GPS or DME/DME-IRU equipped) J43 DEAKK	
	DEAKK (RNAV)-STAR	1030-0300
Toronto (CYYZ)	(Water-Turbojets) VALLY PERMT AR16 ILM J109	
	BUF YOUTH-STAR	
Vero Beach (VRB)	DRCT	1030-0300
	or	
	J53 HEDLY	
Washington Dulles (IAD)	J53 CRG J51 SAV J207 RDU FAK COATT-STAR	1000-0300
	or	
	(GPS or DME/DME-IRU equipped) J53 CRG J51	
	SAV J207 RDU FAK BARIN-STAR	1000-0300
	or	
	(Water) VALLEY PERMT AR16 ILM J109 FAK	
	COATT-STAR	1000-0300
	or	
	(Water-GPS or DME/DME-IRU equipped) VALLY	
	PERMT AR16 ILM J109 FAK BARIN-STAR	1000-0300
Washington Natl (DCA)	(Turbojets) J53 CRG J51 SAV J55 CHS J165 RIC	
	IRONS-STAR	1000-0300
	or	
	(Water-Turbojets) VALLY PERMT AR16 ILM J40	
	RIC IRONS-STAR	1000-0300
	or	
	(GPS or DME/DME-IRU equipped) J53 CRG J51	
	SAV J55 CHS J165 RIC OJAAY (RNAV)-STAR	1000-0300
	or	
	(Water-Turbojets-GPS or DME/DME-IRU	
	equipped) VALLY PERMT ILM J40 RIC OJAAY	
	(RNAV)-STAR	1000-0300
Westhampton (FOK)	(Water-Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water-Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 SIE BOUNO-STAR	
	or	
	(Water-Turbojets) VALLY WOLFO AR18 DIW	
	WETRO CEBEE SWL J121 SIE V139 RICED	
	RICED-STAR	
Wilmington (ILM)	(Water-Turbojets) VALLY PERMT AR16	
Windsor Locks (BDL)	(Water-Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SBY J79 VILLS DPK DPK-STAR	
Worcester (ORH)	(Water-Turbojets) VALLY PERMT AR16 ILM	
	KEMPR SYB J79 JFK DPK MAD HFD	
MOBILE (MOB)		
Houston (HOU)	(DME/DME-IRU or GPS-equipped) SJI COLUMBIA	
	(RNAV)-STAR	
	or	
	(Non-advanced NAV only) SJI J50 AEX DAS-STAR.	
Houston (IAH)	(DME/DME-IRU or GPS-equipped) SJI WOLDE	
	(RNAV)-STAR	
	or	
	(Non-advanced NAV only) SJI GILCO-STAR	
MYRTLE BEACH (MYR)		
Detroit/ Wayne (DTW)	BKW GEMNI-STAR	
NASHVILLE		
Baltimore (BWI)	J42 BKW J147 CSN OTT-STAR	
	or	
	(GPS or DME/DME-IRU equipped) J42 BKW J147	
	CSN OTT-STAR	
Boca Raton (BCT)	(GPS or DME/DME-IRU equipped) MGM SZW	
	PRRIE (RNAV)-STAR	

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PREFERRED IFR ROUTES

Terminals	Route	Effective Times (UTC)
Boston (BOS).....	J46 VXV SPA SPA100 J209 RDU J207 FKN J79 JFK ORW-STAR	
Chicago/Midway (MDW)	(/E/G/R/J/L/Q only) IIU OKK FISSK (RNAV)-STAR.....	0000-2359
	or (non-advanced RNAV only) IIU OKK V285 CLEFT OXI CGT	0000-2359
Chicago O'Hare (ORD).....	(/E/G/R/J/L/Q only) IIU HEVAN MZZ ROYKO (RNAV)-STAR.....	0000-2359
	or (non-advanced RNAV only) IIU HEVAN MZZ MZZ344/33 OXI KNOX-STAR.....	0000-2359
	or IIU MZZ OXI KNOX-STAR	
Cincinnati (CVG).....	BWG V49 ABB V47 CVG	
Cleveland (CLE)	IIU ZABER-STAR.....	
Columbus (CMH)	LVT V493 YRK YRK035 APE168 NIKLS	
Denver (DEN)	FAM J112 BUM J110 GCK J154 RYLIE DANDD-STAR	
Detroit/Wayne (DTW).....	(RNAV only) IMPEL VHP FWA MIZAR-STAR	
	or CCT VHP FWA MIZAR-STAR.....	
Fort Lauderdale (FLL)	(all others) J39 MGM SZW J41 PIE FORTL-STAR ..	
Fort Myers (FMY, RSW).....	(Turbojets-GPS or DME/DME-IRU equipped) J39 MGM J41 SZW SSCOT (RNAV)-STAR.....	1100-0300
Houston (HOU)	(GPS or DME/DME-IRU equipped) LIT J180 SWB ROKIT (RNAV)-STAR	
	or (Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
Houston (IAH).....	(Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR	
	or (Non-advanced NAV only) LIT J180 SWB DAS-STAR.....	
Indianapolis (IND)	J39 IIU DECEE-STAR	
Kennedy (JFK).....	J46 VXV SPA SPA100 J209 ORF J121 SIE CAMRN-STAR	
La Guardia (LGA)	J42 GVE KORRY-STAR	
Miami (MIA).....	(all others) J39 MGM SZW J41 PIE CY-STAR.....	
	or (Turbojets-GPS or DME/DME-IRU equipped) J39 MGM SZW SSCOT (RNAV)-STAR.....	
Minneapolis (MSP)	IIU J89 BAE EAU-STAR.....	
Newark (EWR)	SPA J14 J51 FAK DYLIN-STAR	1100-0400
	or (GPS or DME/DME-IRU equipped) SPA J14 J51 FAK PHLBO (RNAV)-STAR	1100-0400
Orlando (MCO, ORL)	J39 MGM SZW J43 PIE LAL	1100-0400
	or (GPS or DME/DME-IRU equipped) J39 MGM SZW J43 PIE COSTR (RNAV)-STAR.....	1100-0400
Philadelphia (PHL)	J42 OTT DPNT-STAR.....	
Pittsburgh (PIT)	IIU HNN WISKE-STAR	
St. Louis (STL)	QBALL-STAR	
Toronto (CYYZ).....	J39 ROD J43 CRL J586 YXU V98 YWT V216	
Washington Dulles (IAD).....	J42 BKW ROYIL-STAR.....	
	or J42 BKW SHNON (RNAV)-STAR	
Washington Natl (DCA).....	J42 BKW WZRRD-STAR.....	
	or (GPS or DME/DME-IRU equipped) J42 BKW ELDEE (RNAV)-STAR.....	
West Palm Beach (PBI)	(Turbojets-GPS or DME/DME-IRU equipped) MGM SZW WLACE (RNAV)-STAR.....	

Terminals	Route	Effective Times (UTC)
Windsor Locks (BDL).....	J46 VXV SPA SPA100 J209 RDU J207 FKN J79 JFK DPK DPK-STAR	
ORLANDO METRO AREA (MCO, ORL, ISM, LEE, SFB)		
Baltimore (BWI)	(Water-Turbojets-GPS or DME/DME-IRU equipped) MLB LENDS AR16 ILM J40 RIC RAVNN (RNAV)-STAR	1100-0400
	or (GPS or DME/DME-IRU equipped) J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)-STAR	1100-0400
Detroit/Wayne (DTW)	JAGUAR-DP IRQ J53 SPA HNN WEEDA-STAR	
Fort Pierce (FPR)	VRB.....	1030-0300
Houston (HOU)	(GPS or DME/DME-IRU equipped) PIE REMIS Q100 LEV COLUMBIA (RNAV)-STAR	1000-0300
	or (GPS or DME/DME-IRU equipped) SZW J2 SJI COLUMBIA (RNAV)-STAR	1000-0300
	or (Non-advanced NAV only) SZW J2 CEW J50 AEX DAS-STAR.....	1000-0300
Houston (IAH)	(GPS or DME/DME-IRU equipped) PIE REMIS Q100 LEV WOLDE (RNAV)-STAR.....	1000-0300
	or (DME/DME-IRU equipped) SZW J2 SJI WOLDE (RNAV)-STAR	1000-0300
	or (Non-advanced NAV only) SZW J2 CEW J50 AEX GILCO-STAR.....	1000-0300
Key West (EYW)	RSW J41	1030-0300
Overwater Routes to the Northeast	(Water-Turbojets) MLB LENDS AR16 ILM	
	or (Water-Turbojets) MLB ETECK AR18 DIW	
Wilmington (ILM)	(Water-Turbojets) MLB LENDS AR16	
From ORLANDO EXECUTIVE (ORL) only		
Albany (ALB)	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130	
Atlanta (ATL).....	J53 CRG DBN SINCA-STAR.....	
	or (RNAV only) J53 CRG DBN CANUK RNAV-STAR.....	
Baltimore (BWI).....	(Water-Turbojets) MLB LENDS AR16 ILM J40 RIC OTT-STAR	1100-0400
	or J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC OTT-STAR	1100-0400
Bedford (BED).....	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR.....	
	or (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Beverly (BVY)	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR.....	
	or (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Bridgeport (BDR)	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Charlotte (CLT).....	J53 CRG J51 SAV J207 FLO CTF-STAR.....	
	or (Turbojets-GPS or DME/DME-IRU equipped) J53 CRG J51 SAV HUSTN (RNAV)-STAR	
Cincinnati (CVG)	(RNAV only) J53 CRG J45 ATL J43 VXV JAKIE (RNAV)-STAR.....	

Terminals	Route	Effective Times (UTC)
	or (all others) J53 CRG J45 ATL J43 VXV	
Cleveland (CLE).....	HARDU-STAR	
Columbus (CMH)	J53 SPA J85 TVT040 KEATN KEATN-STAR	
Dallas/Ft. Worth (DFW)	J53 SPA J85 HVQ HNN BREMN-STAR	
Danbury (DXR)	PIE REMIS Q100 REDFN Q105 HRV J58 AEX CQY . (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR.....	
Denver (DEN)	CTY SZW J41 MEM RZC PER GCK J154 RYLIE DANDD-STAR	
Detroit/Wayne (DTW)	VXV J91 HNN WEEDA-STAR	
Detroit Satellites: Detroit (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB)	J53 CRG J45 ATL J91 VXV J43 FLM DQN CRUXX-STAR	1100-0400
	or	
East Hampton (HTO).....	J53 IRQ J85 DJB LLEEO-STAR	
	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	
Farmingdale (FRG).....	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	
Hartford (HFD)	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Indianapolis (IND)	J53 CRG J45 ATL J89 IUU DECEE-STAR	
Islip (ISP)	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Kennedy (JFK).....	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	0700-0000
	or	
La Guardia (LGA)	J53 CRG J51 SAV J55 CHS J121 SIE CAMRN-STAR	
	(Water-Turbojets) MLB LENDS AR16 ILM J40 TYI HPW J191 PXT KORRY-STAR	1100-0300
	or	
Lawrence (LWM)	J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY-STAR.....	1100-0300
	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR.....	
	or	
Louisville (SDF).....	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Manchester (MHT).....	CTY J91 ATL HCH DARBY-STAR	
	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK ALB EEN	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU-STAR	1100-0400
Montreal (CYUL).....	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR.....	
Nantucket (ACK).....	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO V46.....	
Nashville (BNA)	CTY J91 ATL VOLLS-STAR	1100-0400
Newark (EWR)	(GPS or DME/DME-IRU equipped-WATER) MLB LEND S AR16 ILM J109 FAK PHLBO (RNAV)-STAR.....	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)-STAR	1100-0400
Newburgh (SWF).....	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
New Haven (HVN)	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New London (GON)	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	

Terminals	Route	Effective Times (UTC)
Philadelphia (PHL)	(Water-Turbjets) J53 CRG J55 CHS J121 SWL SWL034 RADD5 VCN-STAR	1100-0400
Pittsburgh (PIT)	CRG J51 CAE PSK EKN IHD NESTO-STAR	1100-0400
Poughkeepsie (POU)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR	
Providence (PVD)	(Water-Turbjets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)-STAR	
Springfield (CEF)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK-STAR	
St. Louis (STL)	CTY SZW J41 VUZ J151 VISQA QBALL-STAR	1100-0400
Toronto (CYYZ)	(Water-Turbjets) MLB LENDS AR16 ILM J109 BUF YOUTH-STAR	
Washington Natl (DCA)	(Water-Turbjets-GPS or DME/DME-IRU equipped) MLB LENDS AR16 ILM J40 RIC OJAAY (RNAV)-STAR	
	or (Water-Turbjets) MLB LENDS AR16 ILM J40 RIC IRON5-STAR	
Washington Dulles (IAD)	(Water-GPS or DME/DME-IRU equipped) MLB LEND5 AR16 ILM J109 FAK BARLIN -STAR	
	or (Water) MLB LENDS AR16 ILM J109 FAK COATT-STAR	
Westfield (BAF)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK-STAR	
Westhampton Beach (FOK)	(Water-Turbjets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water-Turbjets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO-STAR	
	or (Water-Turboprops) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR	
Windsor Locks (BDL)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK-STAR	
Worcester (ORH)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD	
From ORLANDO INTL (MCO) only		
Atlanta (ATL)	MCOY-DP AMG SINCA-STAR	1100-0400
	or (RNAV only) JAGUAR-DP DBN CANUK (RNAV)-STAR	1100-0400
Baltimore (BWI)	MCOY-DP SAV J55 CHS J79 TYI J40 RIC OTT-STAR	1100-0400
	or (Water-Turbjets) MLB LENDS AR16 ILM J40 RIC OTT-STAR	
Bedford (BED)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
	or (Water-Turbjets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Beverly (BVY)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
	or (Water-Turbjets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Boston (BOS)	(Water-Turbjets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK ORW-STAR	1100-0300
	or MCOY-DP SAV J55 CHS J79 JFK ORW-STAR	1100-0300
Bridgeport (BDR)	(Water-Turbjets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	

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Terminals	Route	Effective Times (UTC)
Charlotte (CLT).....	MCOY-DP SAV J207 FLO CTF-STAR..... or (Turbojets-GPS or DME/DME-IRU equipped) MCOY-DP SAV HUSTN (RNAV)-STAR.....	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)-STAR.....	1100-0400
	or (non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100-0400
Chicago O'Hare (ORD).....	(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR	1100-0400
	or (non-advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR	1100-0400
Cincinnati (CVG).....	(RNAV only) MCCOY-DP AMG J45 ATL J43 VXV JAKIE (RNAV)-STAR	
	or (all others) MCOY-DP AMG J45 ATL J43 VXV HARDU-STAR	1100-0400
Columbus (CMH)	MCOY-DP IRQ J53 SPA J85 HVQ HNN BREMN-STAR	1100-0400
Danbury (DXR)	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR.....	
Detroit/Wayne (DTW).....	JAGUAR-DP IRQ J53 SPA HNN WEEDA-STAR	
Detroit Satellites:		
Detriot (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor (ARB)	JAGUAR-DP IRQ J85 DJB LLEEO-STAR	
Fort Myers (FMY, RSW)	LBV	
Hartford (HFD)	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE-STAR	1100-0400
Islip (ISP)	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Kennedy (JFK).....	(Water) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	
	or MCOY-DP SAV J55 CHS J121 SIE CAMRN-STAR ..	
La Guardia (LGA).....	MCOY-DP SAV J207 RDU J55 HPW J191 PXT ENO-STAR	1100-0300
	or (Water-Turbojets) MLB LENDS AR16 ILM J40 TYI HPW J191 PXT ENO-STAR	
Lawrence (LWM).....	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR.....	
	or (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Louisville (SDF).....	CTY J91 ATL HCH DARBY-STAR	1100-0400
Minneapolis (MSP)	(all others) CTY VUZ ALO KASPR-STAR.....	
	or (/E, /G, /R, /J, /L, /Q) WEBSS BRUTS Q110 FEONA VUZ ALO KASPR-STAR.....	
Montreal (CYUL).....	(Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR.....	
Nantucket (ACK).....	(Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO V46.....	
Nashville (BNA)	CTY J91 ATL VOLLS-STAR	1100-0400

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Terminals	Route	Effective Times (UTC)
Newark (EWR)	(Water–Turbojets) MLB LENDS AR16 ILM J109 FAK DYLIN–STAR..... or MCOY–DP SAV J207 FLO J55 J51 FAK DYLIN–STAR	1100–0400
	or J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1100–0400
	(Turbojets–WATER) MLB LENDS AR16 ILM J109 FAK DYLIN–STAR.....	1100–0400
	or (GPS or DME/DME–IRU equipped) MCCOY SAV J207 FLO J55 J51 FAK PHLBO (RNAV)–STAR or (GPS or DME/DME–IRU equipped–WATER) MLB LEND S AR16 ILM J109 FAK PHLBO (RNAV)–STAR	1100–0400
Newburgh (SWF)	(Water–Turbojets)–MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR.....	
New Haven (HVN)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
New London (GON)	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO	
Philadelphia (PHL)	(Turbojets) MCOY–DP SAV J55 CHS J121 SWL SWL034 RADD S VCN–STAR	1100–0400
	or (Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL RADD S VCN–STAR	
Pittsburgh (PIT)	MCOY–DP SAV J51 CAE PSK EKN IHD NESTO–STAR	1100–0400
Poughkeepsie (POU)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK DPK HUDSON–STAR.....	
Providence (PVD).....	(Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)–STAR	
Springfield (CEF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
St. Louis (STL)	CTY J151 VISQA QBALL–STAR..... or (/E, /G, /R, /J, /L, /Q) WEBBS BRUTS Q110 FEONA VUZ J151 VISQA QBALL–STAR	
Toronto (CYYZ).....	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK CFB J95 BUF YOUTH–STAR	
Washington Dulles (IAD).....	MCOY–DP SAV J55 CHS J165 J109 FAK COATT–STAR	1100–0300
Westfield (BAF)	(Water–Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK–STAR	
West Palm Beach (PBI)	(Turbojets–GPS or DME/DME–IRU equipped) DEARY VRB FRWAY (RNAV)–STAR	
	or DEARY VRB TUXXI–STAR	
PALM BEACH METRO AREA (PBI, BCT, LNA, UTX, SUA)		
Albany (ALB)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JOANI LGA LGA055 TRUDE V487 CANAN V130	
Atlanta (ATL).....	(RNAV only) ORL J81 CHESN CANUK (RNAV)–STAR	1100–0300
	or ORL J81 CHESN SINCA–STAR	1100–0300
Baltimore (BWI)	(Water–Turbojets) A699 PERMT AR16 ILM J40 RIC OTT–STAR	
	or	

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Terminals	Route	Effective Times (UTC)
	ORL CRG J51 SAV J55 CHS J79 TYI J40 RIC OTT-STAR	1100-0300
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) A699 PERMT AR16 ILM J40 RIC RAVNN (RNAV)-STAR	
	or (GPS or DME/DME-IRU equipped) ORL CRG J51 SAV J55 CHS J79 TYI J40 RIC RAVNN (RNAV)-STAR	1100-0300
Bedford (BED)	(Water-ALT-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	or (Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
Beverly (BVY)	(Water-ALT-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	or (Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR	
Boston (BOS)	(Water-Turbojets) A699 PERMT AR16 KEMPR SBY J79 JFK ORW-STAR	1100-0300
	or ORL J53 CRG J51 SAV J55 CHS J79 JFK ORW-STAR	1100-0400
Bridgeport (BDR)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Charlotte (CLT)	ORL J53 CRG J51 SAV J207 FLO CTF-STAR	
	or (Turbojets-GPS or DME/DME IRU equipped) ORL J53 CRG J51 SAV HUSTN (RNAV)-STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)-STAR	1100-0300
	or (non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100-0400
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR	1100-0300
	or (non-advanced RNAV only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR	1100-0300
Cincinnati (CVG)	(All Others) CTY J91 VXV HARDU-STAR	1100-0300
	or (RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR	
Cleveland (CLE)	ORL J53 SPA J85 TVT040 KEATN KEATN-STAR	1100-0300
Columbus (CMH)	ORL J81 IRQ J53 SPA J85 HVQ HNN BREMN-STAR	1100-0300
Cross City (CTY)	LAL	1030-0300
Dallas/Ft Worth (DFW)	SRQ Q100 REDFN Q105 HRV J58 AEX CQY	
Danbury (DXR)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR	
Daytona Beach (DAB)	MLB	1030-0300
Denver (DEN)	SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL-STAR	
	or CTY SZW J41 MEM RZC PER GCK J154 RYLIE DANDD-STAR	
Detroit/Wayne (DTW)	ORL J53 SPA HNN WEEDA-STAR	
Dixon (DIW)	(Water-Turbojets) WOLFO AR18	

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Terminals	Route	Effective Times (UTC)
East Hampton (HTO)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 HTO	
Farmingdale (FRG)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Fort Myers (RSW)	RSW	1030–0300
Groton (GON)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 HTO	
Hartford (HFD)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD V1	
Houston (HOU)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)–STAR	1000–0300
	or (GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)–STAR	1000–0300
	or (Non–advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS–STAR	1000–0300
Houston (IAH)	(GPS or DME/DME–IRU equipped) SRQ Q100 LEV WOLDE (RNAV)–STAR	1000–0300
	or (GPS or DME/DME–IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)–STAR	1000–0300
	or (Non–advanced NAV only) LAL J73 SZW J2 SJI GILCO–STAR	1000–0300
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	1100–0300
Islip (ISP)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SARDI CCC	
Jacksonville (JAX)	ORL J53	1030–0300
Kennedy (JFK)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE J121 SIE CAMRN–STAR	1100–0300
	or ORL J53 CRG J51 SAV J55 CHS J121 SIE CAMRN–STAR	1000–0300
La Guardia (LGA)	(Water–Turbojets) A699 PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY–STAR	
	or ORL J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT KORRY–STAR	1100–0400
Lawrence (LWM)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM–STAR	
	or (Water–ALT–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM–STAR	
Louisville (LOU)	CTY J91 ATL HCH DARBY–STAR	1100–0300
Manchester (MHT)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK ALB EEN	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	1100–0300
Montreal (CYUL)	(Water–Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT–STAR	
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	1100–0300
Nantucket (ACK)	(Water–Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO V46	
Newark (EWR)	(Water–GPS or DME/DME–IRU equipped) A699 PERMT AR16 ILM J109 FAK PHLBO (RNAV)–STAR	
	or ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK DYLIN–STAR	1100–0300
	or (WATER) A699 PERMT AR16 ILM J109 FAK DYLIN–STAR	
	or	

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Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME-IRU equipped) ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK PHLBO (RNAV)-STAR	1100-0300
Newburgh (SWF)	(Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
New Haven (HVN)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED	
Ocala (OCF)	LAL	1030-0300
Orlando (MCO)	BAIRN GOOFY-STAR	1030-0300
Overwater Routes to the Northeast	(Water) A699 PERMT AR16 ILM or WOLFO AR18 DIW	1030-0300
Philadelphia (PHL)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL RADDS VCN-STAR	
	or ORL J53 CRG J51 SAV J55 CHS J121 SWL SWL034 RADDS VCN-STAR.....	1100-0300
Pittsburgh (PIT)	ORL J53 CRG J51 CAE PSK EKN IHD NESTO-STAR	
Poughkeepsie (POU)	(Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR.....	
Providence (PVD)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)-STAR	
Raleigh/Durham (RDU)	(Water-Turbojets) A699 PERMT AR16 ILM BRADE-STAR	
	or ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE-STAR	1100-0400
St. Louis (STL)	TBIRD CTY J151 VISQA QBALL-STAR	
	or (/E,/G,/R,/J,/L,/O) TBIRD KPASA Q110 FEONA VUZ J151 VISQA QBALL-STAR	
Springfield (CEF)	(Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DPK-STAR	
Tallahassee (TLH)	LAL	1030-0300
Tampa (TPA)	LBV BRDGE-STAR	1030-0300
	or BRDGE BRDGE-STAR.....	1030-0300
	or (GPS or DME/DME-IRU equipped) DEAKK DEAKK (RNAV)-STAR.....	1000-0300
	or (GPS or DME/DME-IRU equipped) DEAKK DEAKK (RNAV)-STAR.....	1030-0300
Toronto (CYYZ)	(Water-Turbojets) A699 PERMT AR16 ILM J109 BUF YOUTH-STAR	
Washington Dulles (IAD)	(Water-GPS or DME/DME-IRU equipped) A699 PERMT AR16 ILM J109 FAK BARIN-STAR	
	or (Water) A699 PERMT AR16 ILM J109 FAK COATT-STAR	
	or (GPS or DME/DME-IRU equipped) ORL J53 CRG J51 SAV J207 RDU FAK BARIN-STAR	
	or ORL J53 CRG J51 SAV J207 RDU FAK COATT-STAR	
Washington Natl (DCA)	(Water) A699 PERMT AR16 ILM J40 RIC IRONS-STAR	
	or (Water-Turbojets-GPS or DME/DME-IRU equipped) A699 PERMT AR16 ILM J40 RIC OJAAY (RNAV)-STAR	
Westfield (BAF)	(Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 VILLS DPK DPK-STAR	

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Terminals	Route	Effective Times (UTC)
Westhampton Beach (FOK)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 HTO	
White Plains (HPN)	(Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO-STAR	
	or (Water-Turboprops) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR	
Wilmington (ILM)	(Water-Turbojets) A699 PERMT AR16	
Windsor Locks (BDL)	(Water-Turbojets) PERMT A699 AR16 ILM KEMPR SBY J179 VILLS DPK DPK-STAR	
Worcester (ORH)	(Water-Turbojets) A699 PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD	
PENSACOLA (PNS)		
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) MGM RESPE GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR	0000-2359
	or (non-advanced RNAV only) MGM RESPE GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR	0000-2359
Houston (HOU)	(GPS or DME/DME-IRU equipped) ROMMY HRV COLUMBIA (RNAV)-STAR	1000-0300
	or (Non-advanced NAV only) SJI AEX DAS-STAR	1000-0300
Houston (IAH)	(GPS or DME/DME-IRU equipped) ROMMY HRV WOLDE (RNAV)-STAR	1000-0300
	or (Non-advanced NAV only) SJI GILCO AEX DAS-STAR	1000-0300
PORT AU PRINCE (MTPP)		
Atlanta (ATL)	(if unable FL370 by CVIKK) J0SES A315 ZIN FLL ORL CRG SINCA-STAR	
	or ALBBE A636 ZIN FLL ORL CRG CANUK (RNAV)-STAR	
	or (if unable FL370 by CVIKK) ALBBE A636 ZIN FLL ORL CRG SINCA-STAR	
	or (if unable FL370 by CVIKK) J0SES A315 ZIN FLL ORL CRG CANUK (RNAV)-STAR	
Kennedy (JFK)	B0TES G444 GTK M594 CERDA LUCTI L454 OWENZ CAMRN	
	or B0TES G444 GTK M594 CERDA L453 AZEZU BERGH L454 OWENZ CAMRN	
	or B0TES G444 GTK L452 OXANA AR8 ECG ORF J121 SIE CAMRN-STAR	
	or J0SES A315 ZIN A756 DUKKY A555 ZQA AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	
Newark (EWR)	ALBBE M594 CERDA LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO	
	or ALBBE M594 GTK L452 OXANA AR8 ECG FAK DYLIN-STAR	
	or ALBBE M594 GTK L452 OXANA AR8 ECG FAK PHLBO (RNAV)-STAR	
RALEIGH-DURHAM (RDU)		
Albany (ALB)	TYI J79 SBY J79 JOANI LGA LGA055 V487 V130..	1100-0400
Atlanta (ATL)	PACKK-DP AZELL CAE J4 IRQ SINCA-STAR	1100-0400
	or	

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PREFERRED IFR ROUTES

Terminals	Route	Effective Times (UTC)
	(RNAV only) PACKK-DP AZELL CAE J4 IRQ CANUK RNAV-STAR	1100-0400
Boston (BOS)	TYI J79 JFK ORW-STAR	
Chicago Midway (MDW)	PACKK-DP AZELL PSK HVQ FWA GOSHEN-STAR ..	1100-0400
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) PACKK-DP AZELL HMV FLM HEVAN MZZ ROYKO (RNAV)-STAR	1100-0400
	or	
	(non-advanced RNAV only) PACKK-DP AZELL HMV FLM HEVAN MZZ MZZ344/33 OXI KNOX-STAR .	1100-0400
Cincinnati (CVG)	(RNAV only) HMV JAKIE (RNAV)-STAR	
	or	
	(all others) HMV HARDU-STAR	
Columbia (CAE)	FAY-DP FAY FLO	1100-0400
Dallas/Ft Worth (DFW)	PACKK-DP AZELL SPA J14 VUZ J52 SQS CQY	1100-0400
Detroit/Wayne (DTW)	AZELL PSK BKW GEMNI-STAR	
Fort Lauderdale (FLL)	(Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CHS J79 OMN FISEL (RNAV)-STAR	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CLB BAHAA AR21 CRANS FISEL (RNAV)-STAR	
	or	
	(Turbojets) TARL-DP CHS J79 OMN GISSH-STAR .	
	or	
	(Water-Turbojets) TARL-DP CLB BAHAA AR21 CRANS HIILL FATHR GISSH-STAR	
	or	
	(Turboprops) TARL-DP CHS J79 OMN MLB BLUFI-STAR	
	or	
	(Water-Turboprops-GPS or DME/DME-IRU equipped) TARL-DP CLB BAHAA AR21 CRANS FISEL (RNAV)-STAR	
	or	
	(Water-Turboprops) TARL-DP CLB BAHAA AR21 CRANS HIILL FATHR GISSH-STAR	
Houston (HOU)	(GPS or DME/DME-IRU equipped) VUZ JAN AEX ROKIT (RNAV)-STAR	
	or	
	(Non-advanced NAV only) VUZ JAN AEX DAS-STAR	
Houston (IAH)	(Turbojets-GPS or DME/DME-IRU equipped) VUZ JAN AEX TXMEX (RNAV)-STAR	
	or	
	(Non-advanced NAV only) VUZ JAN AEX DAS-STAR	
Kennedy (JFK)	TYI ORF J121 SIE CAMRN-STAR	1100-0400
La Guardia (LGA)	LVL HPW J191 PXT KORRY-STAR	
Miami (MIA)	(Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CHS J79 OMN HILEY (RNAV)-STAR	
	or	
	(Water-Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CLB SEELO AR22 JORAY HILEY (RNAV)-STAR	
	or	
	(Turbojets) TARL-DP CHS J79 OMN ANNEY-STAR .	
	or	
	(Water-Turbojets) TARL-DP CLB SEELO AR22 JORAY OSOGY ENVOY YOSSY MILSY BOYUR HILEY KAINS	
	or	
	(Turboprops) TARL-DP CHS J79 OMN ANNEY-STAR	
Newark (EWR)	LVL FAK DYLIN-STAR	1100-0300
	or	

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Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME-IRU equipped) LVL FAK PHLBO (RNAV)-STAR	1100-0300
Newburgh (SWF)	TYI J79 JFK BDR V91 STUBY	1100-0300
Orlando (MCO)	(Turbojets) TARL-DP CHS J79 OMN BITHO-STAR.. or (GPS or DME/DME-IRU equipped) TARHEEL-DP CHS J79 OMN CWRLD (RNAV)-STAR	1100-0400
Orlando (ORL)	(Turbojets) TARL-DP CHS J79 OMN CORLL-STAR .	1100-0400
Palm Beach (PBI)	(Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CHS J79 OMN FRWAY (RNAV)-STAR... or (Turbojets) TARL-DP CHS J79 OMN TUXXI-STAR .. or (Water-Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CLB SEELO AR19 AYBID CAYSL (RNAV)-STAR.....	
	or (Water-Turbojets) TARL-DP CLB SEELO AR19 AYBID MIMMI NEUBE SWOMP SANZZ CAYSL	1100-0400
Philadelphia (PHL)	V3 FAK DPNT-STAR	1100-0400
Pittsburgh (PIT)	PACK-DP ROA EKN IHD NESTO-STAR	1100-0400
Sarasota (SRQ)	FAY-DP FAY CAE J75 TAY J85 GNV LAL	1100-0400
Savannah (SAV)	TARL-DP CHS	1100-0400
Tampa (TPA)	FAY-DP FAY CAE J75 TAY LZARD-STAR	1100-0400
	or (GPS or DME/DME-IRU equipped) FAY-DP FAY CAE J75 TAY DADES (RNAV)-STAR	1100-0400
Windsor Locks (BDL)	TYI J79 SBY J79 JFK DPK-STAR	1100-0400
SAN JUAN (TJSJ)		
Atlanta (ATL)	HARDE A555 ZQA FLL ORL CRG CANUK (RNAV)-STAR..... or HARDE A555 ZQA FLL ORL CRG SINCA-STAR..... or CONCH R507.....	
Atlantic City (ACY)	ELMUC L451 LETON L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE	
Baltimore (BWI)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC NOTTINGHAM-STAR	
	or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC RAVNN (RNAV)-STAR.....	
	or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC NOTTINGHAM-STAR	
	or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC RAVNN (RNAV)-STAR	
Bedford (BED).....	ELMUC L454 LUCTI OWENZ HTO ORW GRAYM-STAR	
	or ELMUC L451 CERDA L453 AZEZU BERGH OWENZ HTO ORW GRAYM-STAR	
	or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	or ELMUC L451 LETON L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
Charlotte (CLT)	ELMUC L451 OLDEY CHS CHESTERFIELD-STAR... or ELMUC L451 OLDEY CHS HUSTN (RNAV)-STAR....	

Terminals	Route	Effective Times (UTC)
Cincinnati (CVG)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG VXV JAKIE (RNAV)–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA CAE VXV JAKIE (RNAV)–STAR	
Cleveland (CLE)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HVQ TVT KEATN–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS CAE HVQ TVT KEATN–STAR	
Dayton (DAY)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG VXV J43 FLM KEKEE–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS CAE VXV J43 FLM KEKEE–STAR	
Detroit (DTW).....	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HNN WEEDA–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA HNN WEEDA–STAR	
Indianapolis (IND)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG IIU V51 DECEE DECEE–STAR.....	
	or	
	ELMUC L451 OLDEY METTA CHS SPA CAE VXV J89 IIU V51 DECEE DECEE–STAR	
Kennedy (JFK).....	ELMUC L454 LUCTI L454 OWENZ CAMRN	
	or	
	ELMUC L453 LAMER L453 AZEZU BERGH L454 OWENZ CAMRN.....	
	or	
	ELMUC L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR	
Louisville (SDF).....	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HCH DARBY–STAR	
	or	
	ELMUC L451 OLDEY METTA CHS SPA HCH DARBY–STAR	
Newark (EWR).....	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK DYLIN–STAR	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	or	
	ELMUC L454 LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO.....	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 OWENZ CYN GXU RBV V249 METRO	
Ottawa (CYOW)	ELMUC L454 LUCTI L454 JFK SYR J599	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 JFK SYR J599	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SYR J599	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM SYR J599	
Providence (PVD)	ELMUC L454 LUCTI L454 BERGH OWENZ HTO JORDN	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH OWENZ HTO JORDN	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SWL J174 HTO JORDN	
	or	

Terminals	Route	Effective Times (UTC)
Quebec (CYQB)	ELMUC L451 OLDEY AR3 PANAL DIW SWL J174 HTO JORDN	
	ELMUC L454 LUCTI L454 JFK PLB J560	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 JFK PLB J560	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG ORF SBY J209 VILLS SAX J6 PLB J560.....	
	or	
	ELMUC L451 OLDEY AR3 PANAL DIW J174 ORF SBY J209 VILLS SAX J6 PLB J560	
Raleigh-Durham (RDU)	ELMUC L451 OLDEY ILM BRADE-STAR	
Teterboro (TEB).....	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)-STAR	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 OWENZ	
	or	
	ELMUC L454 LUCTI L454 OWENZ.....	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)-STAR	
Washington (DCA)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC IRONS-STAR	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC OJAAY (RNAV)-STAR.....	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J40 RIC IRONS-STAR	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J40 RIC OJAAY (RNAV)-STAR	
Washington (IAD)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK BARIN (RNAV)-STAR	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK COATT-STAR	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK BARIN (RNAV)-STAR	
	or	
	ELMUC L451 OLDEY AR3 CLB ILM J109 FAK COATT-STAR	
White Plains (HPN)	ELMUC L454 LUCTI L454 OWENZ.....	
	or	
	ELMUC L451 CERDA L453 AZEZU BERGH L454 OWENZ	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG ORF J121 SIE BOUNO-STAR	
	or	
	ELMUC L451 OLDEY ECG ORF J121 SIE BOUNO-STAR	
Winsor Locks (BDL)	ELMUC L454 LUCTI L454 JFK DBK DEER PARK-STAR	
	or	
	ELMUC L451 LETON L451 OLDEY AR3 CLB ILM KEMPR SBY J79 JFK DPK DEER PARK-STAR.....	
	or	
	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK DPK DEER PARK-STAR	
Winnipeg (CYWG)	ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG IIU J99 BAE MSP	
	or	

Terminals	Route	Effective Times (UTC)
SANTO DOMINGO SPECIAL AREA (MDSD, MDPC, MDLR, MDST, MDPP, MDJB, MDCT)	ELMUC L451 OLDEY METTA CHS VXV J89 IIU J99 BAE MSP.....	
	[ATTENTION: Routes over JUELE fix are for aircraft that are not HF equipped, not deep over water equipped or do not want to file deep oceanic routes. Also, for aircraft with destinations to Florida airports please see Special High Altitude Directional Routes.]	
Altantic City (ACY)	BESAS L464 CERDA L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J121 SIE	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL J121 SIE	
	or	
	(Non-HF equipped) JUELE L463 NUCAR AR3 CLB DIW WETRO CEBEE SWL J121 SIE.....	
Baltimore (BWI)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC NOTTINGHAM-STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC RAVNN (RNAV)-STAR.....	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CBL ILM J40 RIC NOTTINGHAM-STAR.....	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CBL ILM J40 RIC RAVNN (RNAV)-STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC NOTTINGHAM-STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC RAVNN (RNAV)-STAR	
Bangor (BGR).....	BESAS L464 CERDA LUCTI L454 BERGH HTO LFV J79	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH OWENZ HTO LFV J79.....	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK HTO LFV	
Bedford (BED).....	BESAS L464 CERDA L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH OWENZ HTO ORW GRAYM-STAR	
	or	
	BESAS L464 CERDA LUCTI L454 BERGH OWENZ HTO ORW GRAYM-STAR	
	or	
	JUELE L463 NUCAR AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR.....	
Boston (BOS)	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM KEMPR SBY J79 JFK NORWICH-STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM KEMPR SBY J49 JFK INNDY (RNAV)-STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK INNDY (RNAV)-STAR.....	
	or	

Terminals	Route	Effective Times (UTC)
Charlotte (CLT)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK NORWICH-STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK NORWICH-STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK INNDY (RNAV)-STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK NORWICH-STAR	
	BESAS L464 CERDA L451 OLDEY CHS CHESTERFIELD-STAR	
	or	
	BESAS L464 CERDA L451 OLDEY CHS HUSTN (RNAV)-STAR	
Chicago O'Hare (ORD)	or	
	JUELE L463 NUCAR AR3 OLDEY CHS CHESTERFIELD-STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY CHS HUSTN (RNAV)-STAR	
	JUELE L463 NUCAR AR3 OLDEY AR4 CH SPA HMV FLM J24 BIGXX ROYKO (RNAV)-STAR	
	Cincinnati (CVG).....	
	BESAS L464 CERDA L451 OLDEY METTA CHS SPA HMV JAKIE (RNAV)-STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK J24 HVQ HNN JAVIT-STAR	
	or	
Cleveland (CLE)	JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HMV JAKIE (RNAV)-STAR	
	BESAS L464 CERDA L451 OLDEY METTA CHS CAE HVQ TVT KEATN-STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HVQ TVT KEATN-STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS CAE HVQ TVT KEATN-STAR	
	BESAS L464 CERDA L451 OLDEY METTA CHS CAE SPA HMV FLM KEKEE-STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK J24 HVQ HNN	
	or	
Dayton (DAY)	JUELE L463 NUCAR AR3 OLDEY METTA CHS CAE SPA HMV FLM KEKEE-STAR	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HNN WEEDA-STAR	
	or	
	BESAS L464 CERDA L451 OLDEY METTA CHS SPA HNN WEEDA-STAR	
	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HNN WEEDA-STAR	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG IIU V51 DECEE DECEE-STAR	
	or	
	BESAS L464 CERDA L451 OLDEY METTA CHS SPA CAE VXV J89 IIU V51 DECEE DECEE-STAR .	
	or	
Detroit (DTW).....	JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA CAE VXV J89 IIU V51 DECEE DECEE-STAR	
	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ CAMRN	
Indianapolis (IND)		
Kennedy (JFK).....		

Terminals	Route	Effective Times (UTC)
	or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF J121 SIE CAMRN-STAR	
	or BESAS L464 CERDA LUCTI L454 OWENZ CAMRN .	
	or BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	
	or JUELE L463 NUCAR AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR	
La Guardia (LGA).....	BESAS L464 LAMER L453 AZEJU BERGH L454 OWENZ CAMRN.....	
	or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HPW J191 PXT KORRY-STAR	
	or BESAS L464 CERDA LUCTI L454 OWENZ CAMRN .	
	or BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 TYI HPW J191 PXT KORRY-STAR	
	or JUELE L463 NUCAR AR3 CLB ILM J40 TYI HPW J191 PXT KORRY-STAR.....	
Louisville (SDF).....	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HCH DARBY-STAR	
	or BESAS L464 CERDA L451 OLDEY METTA CHS SPA HCH DARBY-STAR	
	or JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HCH DARBY-STAR	
Montreal (CYMX), (CYUL).....	BESAS L464 LAMER L453 AZEJU BERGH L454 JFK J37 ALB J6 PLB PLATTSBURGH-STAR	
	or JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK J37 ALB J6 PLB PLATTSBURGH-STAR ..	
Morristown (MMU).....	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)-STAR	
	or BESAS L464 LAMER L453 AZEJU BERGH L454 OWENZ	
	or BESAS L464 CERDA LUCTI L454 OWENZ	
	or BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)-STAR	
	or JUELE L463 NUCAR AR3 CLB ILM J109 FAK JAIKE (RNAV)-STAR	
Newark (EWR).....	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK DYLIN-STAR	
	or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK PHLBO (RNAV)-STAR	
	or BESAS L464 LAMER L453 AZEJU BERGH L454 OWENZ CYN GXU RBV V249 METRO	
	or BESAS L464 CERDA LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO	
	or BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK DYLIN-STAR.....	
	or	

Terminals	Route	Effective Times (UTC)
Ottawa (CYOW)	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK DYLIN–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	BESAS L464 CERDA LUCTI L454 JFK SYR J599 ...	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK SYR J599	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SYR J599	
Philadelphia (PHL)	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM SYR J599	
	or	
	JUELE L463 NUCAR AR3 CLB ILM SYR J599	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL RADDs CEDAR LAKE–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL RADDs CEDAR LAKE–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU B24 SIE	
	BESAS L464 CERDA LUCTI L454 BERGH OWENZ HTO JORDN	
Providence (PVD)	or	
	BESAS L464 LAMER L453 AZEZU BERGH OWENZ HTO JORDN	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL J174 HTO JORDN	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW SWL J174 HTO JORDN	
	or	
	JUELE L463 NUCAR AR3 PANAL DIW SWL J174 HTO JORDN	
	BESAS L464 CERDA LUCTI L454 JFK PLB J560	
	or	
Quebec (CYQB)	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK PLB J560	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF SBY J209 VILLS SAX J6 PLB J560	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW J174 ORF SBY J209 VILLS SAX J6 PLB J560	
	or	
	JUELE L463 NUCAR AR3 PANAL DIW J174 ORF SBY J209 VILLS SAX J6 PLB J560	
	BESAS L464 CERDA L451 OLDEY ILM BRADE–STAR	
	or	
	JUELE L463 NUCAR ILM BRADE–STAR	
Raleigh/Durham (RDU)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)–STAR	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ	
	or	
	BESAS L464 CERDA LUCTI L454 OWENZ	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK DYLIN–STAR	
	or	
Teterboro (TEB)	JUELE L463 NUCAR AR3 CLB ILM J109 FAK PHLBO (RNAV)–STAR	
	BESAS L464 CERDA LUCTI L454 JFK SYR J599 ...	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK SYR J599	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SYR J599	
	or	
	JUELE L463 NUCAR AR3 CLB ILM SYR J599	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL RADDs CEDAR LAKE–STAR	
	or	

Terminals	Route	Effective Times (UTC)
Toronto (CYYZ)	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK JAIKE (RNAV)–STAR	
	BESAS L464 LAMER L453 AZEZU BERGH L454 JFK J63 HUO CFB J95 BUF YOUTH (RNAV)–STAR	
Washington (DCA)	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 BUF YOUTH (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 BUF YOUTH (RNAV)–STAR	
Washington (IAD)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC IRONS–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC OJAAY (RNAV)–STAR	
	or	
White Plains (HPN)	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 RIC IRONS–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 RIC OJAAY (RNAV)–STAR	
	or	
Windsor Locks (BDL)	JUELE L463 NUCAR AR3 CLB ILM J40 RIC IRONS–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J40 RIC OJAAY (RNAV)–STAR	
	BESAS L464 CERDA LNHOM L452 OXANA ECG FAK BARIN (RNAV)–STAR	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA ECG FAK COATT–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK BARIN (RNAV)–STAR	
	or	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK COATT–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK BARIN (RNAV)–STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM J109 FAK COATT–STAR	
	BESAS L464 CERDA L451 OLDEY ECG ORF J121 SIE BOUNO–STAR	
	or	
	JUELE L463 NUCAR AR3 PANAL DIW WETRO CEBEE SWL J121 SIE BOUNO–STAR	
	or	
	BESAS L464 CERDA LUCTI L454 OWENZ	
	or	
	BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ	
	or	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF J121 SIE BOUNO–STAR	
	BESAS L464 CERDA L451 OLDEY AR3 CLB ILM KEMPR SBY J79 JFK DPK DPK–STAR	
	or	

Terminals	Route	Effective Times (UTC)
Winnipeg (CYWG)	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK DPK DPK-STAR	
	or	
	JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK DPK DPK-STAR	
	BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG IIU J99 BAE MSP	
	or	
	BESAS L464 CERDA L451 OLDEY METTA CHS VXV J89 IIU J99 BAE MSP	
SARASOTA-BRADENTON AREA (SRQ)	or	
	JUELE L463 NUCAR AR3 OLDEY METTA CHS VXV J89 IIU J99 BAE MSP	
Baltimore (BWI).....	TAY J75 CAE J52 RIC OTT-STAR.....	1100-0300
Charlotte (CLT).....	or	1100-0300
	(GPS or DME/DME-IRU equipped) TAY J75 CAE J52 RIC RAVNN (RNAV)-STAR	
	TAY J85 IRQ UNARM-STAR	
Chicago Midway (MDW)	or	1100-0300
	(Turbojets-GPS or DME/DME IRU equipped) TAY J85 IRQ ADENA (RNAV)-STAR	
	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)-STAR.....	
Chicago O'Hare (ORD).....	or	1100-0300
	(non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	
	(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR	0000-2359
Cincinnati (CVG)	or	0000-2359
	(non-advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR	
	(RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR	
Cleveland (CLE).....	or	
	(all others) CTY J91 VXV HARDU-STAR.....	
	PIE J119 TAY J85 TVT040 KEATN KEATN-STAR....	
Columbus (CMH)	PIE J119 TAY J85 HVQ HNN BREMN-STAR	
Dallas/Ft. Worth (DFW)	(Water) SRQ Q100 REDFN Q105 HRV J58 AEX CQY.....	
Denver (DEN)	(Water) Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL-STAR	
Detroit/Wayne (DTW)	PIE TAY J85 SPA HNN WEEDA-STAR	
Detroit Satellites: Ann Arbor (ARB), Pontiac (PTK), Willow Run (YIP).....		
Young (DET).....	PIE J119 TAY J85 IRQ J99 VXV J43 FLM DQN CRUX-STAR	1030-0300
	PIE J119 TAY J85 DJB LLEE-STAR.....	
	(all others) RSW FORTL-STAR	
Houston (HOU)	or	
	(GPS or DME/DME-IRU equipped) RSW FORTL JINGL (RNAV)-STAR	
	(GPS or DME/DME-IRU equipped) SRQ Q100 LEV COLUMBIA (RNAV)-STAR.....	
Houston (IAH)	or	
	(GPS or DME/DME-IRU equipped) SZW J2 SJI COLUMBIA (RNAV)-STAR	
	or	
	(Non-advanced NAV only) SZW J2 CEW J50 AEX DAS-STAR.....	
	(GPS or DME/DME-IRU equipped) SRQ Q100 LEV WOLDE (RNAV)-STAR.....	
	or	

Terminals	Route	Effective Times (UTC)
	(GPS or DME/DME-IRU equipped) SZW J2 SJI WOLDE (RNAV)–STAR	
	or	
	(Non-advanced NAV only) SZW J2 SJI GILCO–STAR	1000–0300
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE–STAR	
La Guardia (LGA)	TAY J75 DUNKN J210 VAN FLO J207 RDU J55 HPW J191 PXT KORRY–STAR	
Louisville (LOU, SDF)	CTY J91 ATL HCH DARBY–STAR	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU–STAR	
Nashville (BNA)	CTY J91 ATL GQO VOLLS–STAR	1100–0300
Newark (EWR)	TAY J75 CAE J51 FAK DYLIN–STAR	1100–0300
	or	
	(GPS or DME/DME-IRU equipped) TAY J75 CAE J51 FAK PHLBO (RNAV)–STAR	1100–0300
Philadelphia (PHL)	TAY J75 CAE J51 FAK DPNT–STAR	
Pittsburgh (PIT)	TAY J75 CAE PSK J53 EKN IHD NESTO–STAR	
Windsor Locks (BDL)	TAY J75 DUNKN J210 J79 JFK DPK DPK–STAR	0700–0000
SAVANNAH (SAV)		
Baltimore (BWI)	CHS J79 TYI J40 RIC OTT–STAR	1100–0400
Philadelphia (PHL)	CHS J121 SWL SWL SWL034 RADDS VCN–STAR ..	1100–0400
Washington Dulles (IAD)	J207 RDU FAK COATT–STAR	
	or	
	(GPS or DME/DME-IRU equipped) J207 RDU FAK BARIN–STAR	
TAMPA/ST PETERSBURG METRO AREA (TPA, SPG, PIE, TPF)		
Atlanta (ATL)	SZW LGC–STAR	
	or	
	(RNAV only) SZW HONIE (RNAV)–STAR	
Baltimore (BWI)	TAY J75 CAE J52 RIC OTT–STAR	1100–0400
	or	
	(GPS or DME/DME-IRU equipped) TAY J75 CAE J52 RIC RAVNN (RNAV)–STAR	1100–0400
Boston (BOS)	TAY J75 DUNKN J210 J79 JFK ORW–STAR	1100–0400
Charlotte (CLT)	TAY J85 IRQ UNARM–STAR	
	or	
	(Turbojets–GPS or DME/DME IRU equipped) TAY J85 IRQ ADENA (RNAV)–STAR	
Chicago Midway (MDW)	(/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)–STAR	1100–0300
	or	
	(non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT	1100–0300
Chicago O'Hare (ORD)	(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK MZZ ROYKO (RNAV)–STAR	0000–2359
	or	
	(non-advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX–STAR	0000–2359
Cincinnati (CVG)	(All Others) CTY J91 VXV HARDU–STAR	
	or	
	(RNAV only) CTY J91 VXV JAKIE (RNAV)–STAR	
Cleveland Metro (CLE)	PIE J119 TAY J85 TVT040 KEATN KEATN–STAR ...	
	or	
	CTY J91 HNN TVT KEATN–STAR	
Columbus (CMH)	PIE J119 TAY J85 HVQ HNN BREMN–STAR	
	or	
	CTY J91 HNN BREMN–STAR	
Denver (DEN)	SZW J41 MEM RZC PER GCK J154 RYLIE DANDD–STAR	
Detroit/Wayne (DTW)	TAY J85 SPA HNN WEEDA–STAR	
Detroit Satellites:		
Ann Arbor (ARB), Pontiac (PTK), Young (DET)	CTY J91 VXV J43 FLM DQN CRUXX–STAR	
Willow Run (YIP)	CTY J91 VXV J43 FLM DQN V98 VQQ CRUXX	

Terminals	Route	Effective Times (UTC)
Windsor (CYQG)	PIE J119 TAY J85 DJB LLEE0-STAR	
Fort Lauderdale:		
Hollywood Intl (FLL), Executive (FXE),		
Pompano Beach (PMP), North Perry		
(HWO), Opa Locka (OPF)	(all others) RSW FORTL-STAR	1030-0300
	or	
	(GPS or DME/DME-IRU equipped) SABEE RXNAN	
	JINGL (RNAV)-STAR	
Fort Myers (RSW), (FMY)	(Turbojets-GPS or DME/DME-IRU equipped) SRQ	
	TYNEE (RNAV)-STAR.....	
Fort Pierce (FPR)	VRB	1030-0300
Houston (HOU)	(GPS or DME/DME-IRU equipped) SIMMR REMIS	
	Q100 LEV COLUMBIA (RNAV)-STAR	1000-0300
	or	
	(GPS or DME/DME-IRU equipped) SZW J2 SJI	
	COLUMBIA (RNAV)-STAR	1000-0300
	or	
	(Non-advanced NAV only) SZW J2 CEW J50 AEX	
	DAS-STAR.....	1000-0300
Houston (IAH)	(GPS or DME/DME-IRU equipped) SIMMR REMIS	
	Q100 LEV WOLDE (RNAV)-STAR.....	1000-0300
	or	
	(GPS or DME/DME-IRU equipped) SZW J2 SJI	
	WOLDE (RNAV)-STAR	1000-0300
	or	
	(Non-advanced NAV only) SZW J2 SJI	
	GILCO-STAR.....	1000-0300
Indianapolis (IND)	CTY J91 ATL J89 IIU DECEE-STAR	
Kennedy (JFK)	TAY J75 J210 J121 SIE CAMRN-STAR	
Key West (EYW)	RSW J41.....	1030-0300
La Guardia (LGA)	TAY J75 DUNKN J210 VAN FLO J207 RDU J55	
	HPW J191 PXT KORRY-STAR	1100-0400
Louisville (SDF)	CTY J91 ATL HCH DARBY-STAR	
Miami (MIA).....	(all others) RSW CYY CYY-STAR.....	1030-0300
	or	
	(Turbojets-GPS or DME/DME-IRU equipped) RSW	
	CYY SSCOT (RNAV)-STAR.....	
Minneapolis (MSP)	CTY J91 ATL J89 BAE EAU-STAR	
Nashville (BNA)	CTY J91 ATL GQO VOLLS-STAR	
Newark (EWR).....	TAY J75 CAE J51 FAK DYLIN-STAR	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) TAY J75 CAE	
	J51 FAK PHLBO (RNAV)-STAR	1100-0400
Philadelphia (PHL)	TAY J75 CAE J51 FAK DPNT-STAR	1100-0400
Pittsburgh (PIT)	TAY J75 CAE PSK EKN IHD NESTO-STAR	
Raleigh-Durham (RDU)	TAY J75 CAE BUZZY-STAR	
Washington Dulles (IAD)	TAY J75 CAE J51 FAK COATT-STAR	1100-0400
Washington Natl (DCA).....	TAY J75 CAE J52 RIC IRONS-STAR	1100-0400
	or	
	(GPS or DME/DME-IRU equipped) TAY J75 CAE	
	J52 RIC OJAAY (RNAV)-STAR	1100-0400
West Palm Beach (PBI)	(Turbojets-GPS or DME/DME-IRU equipped)	
	SABEE JOO0E WLACE (RNAV)-STAR	
Windsor Locks (BDL)	TAY J75 DUNKN J210 J79 JFK DPK DPK-STAR	0700-0000
From St Petersburg (PIE) only:		
Detroit/Wayne (DTW)	TAY J85 SPA HNN WEEDA-STAR	
Detroit Satellites:		
Ann Arbor (ARB), Pontiac (PTK) Willow		
Run (YIP)	CTY J91 VXV J43 FLM DQN CRUXX-STAR	
Windsor (CYQG), Young (DET)	PIE J119 TAY J85 DJB LLEE0-STAR.....	

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES
FOR ATLANTA HARTSFIELD INTL ARPT
(JETS AND TURBOPROPS)

NORTHEAST

Traffic originating North and East of J186 to North of a line from ATL to RDU file:

.....	MOL WHINZ-STAR
	or
.....	MOL FLCON (RNAV)-STAR
.....	J145 ODF WHINZ-STAR
	or
.....	J145 ODF FLCON (RNAV)-STAR
.....	VXV WHINZ-STAR
	or
.....	VXV FLCON (RNAV)-STAR
.....	J186 ODF WHINZ-STAR
	or
.....	J186 ODF FLCON (RNAV)-STAR
.....	SPA ODF WHINZ-STAR
	or
	SPA ODF FLCON (RNAV)-STAR

SOUTHEAST

Traffic originating South of a line from ATL to RDU, to East of J89 file:

.....	IRQ SINCA-STAR
	or
	IRQ CANUK (RNAV)-STAR
.....	DBN SINCA-STAR
	or
	DBN CANUK (RNAV)-STAR

SOUTHWEST

Traffic originating West of J89 to South and West of J14 file:

.....	MEI LGC-STAR
	or
	MEI HONIE (RNAV)-STAR
.....	SZW LGC-STAR
	or
	SZW HONIE (RNAV)-STAR
.....	MGM LGC-STAR
	or
	MGM HONIE (RNAV)-STAR

NORTHWEST

Traffic originating West and North of J43 to North of J14 file:

.....	BWG RMG-STAR
	or
	BWG ERLIN (RNAV)-STAR
.....	BNA RMG-STAR
	or
	BNA ERLIN (RNAV)-STAR
.....	MEM RMG-STAR
	or
	MEM ERLIN (RNAV-STAR)

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR ATLANTA TERMINAL AREA AIRPORTS (SATELLITE AIRPORTS ONLY JETS AND TURBOPROPS)

NORTHEAST

Traffic originating North and East of a line from ATL to VXV to North of a line from ATL to RDU file:

.....	J48 ODF AWSON-STAR
.....	J145 ODF AWSON-STAR
.....	VXV AWSON-STAR
.....	J186 ODF AWSON-STAR
.....	SPA ODF AWSON-STAR

SOUTHEAST

Traffic originating South of a line from ATL to RDU, to East of J89 file:

.....	IRQ TRBOW-STAR
.....	DBN TRBOW-STAR

SOUTHWEST

Traffic originating West of J89 to South and West of J14 file:

.....	MEI LGC DIFFI-STAR
.....	SZW LGC DIFFI-STAR
.....	MGM LGC DIFFI-STAR

NORTHWEST

Traffic originating West and North of a line from ATL to VXV to North of J14 file:

.....	GQO BUNNI-STAR
.....	RQZ BUNNI-STAR

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR CHARLOTTE TERMINAL AREA

NORTHEAST

Traffic originating North and East of J53 to North of a line from CLT to RDU file:

.....	LYH MAJIC-STAR
.....	RDU SUDSY (RNAV)-STAR
.....	ROA MAJIC-STAR

SOUTHEAST

Traffic originating South of a line from CLT to RDU to South and East of J51 file:

.....	FLO CTF-STAR
.....	FLO HUSTN (RNAV)-STAR

SOUTHWEST

Traffic originating West of J51 to South of J118 file:

.....	ATL ADENA (RNAV)-STAR
.....	ATL UNARM-STAR
.....	IRQ ADENA (RNAV)-STAR
.....	IRQ UNARM-STAR

NORTHWEST

Traffic originating West of J53 to North of J118 file:

.....	VXV SHINE-STAR
.....	HMV SHINE-STAR

SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR MEMPHIS TERMINAL AREA

NORTHEAST

Traffic entering Memphis ARTCC north of J118:

	BNA WILDER-STAR
	BWG WILDER-STAR
	PXV WILDER-STAR

NORTHWEST

Traffic entering Memphis ARTCC on or west of J35:

	FAM GQE-STAR	
	ARG GQE-STAR	
	SGF ARG GQE-STAR	
	RZC GQE-STAR	
	FSM GQE-STAR	1100-0200

SOUTHEAST

Traffic entering Memphis ARTCC south of J118:

	VUZ HLI-STAR (MONDAY-FRIDAY)	
	GQO HLI-STAR	1100-0200

SOUTHWEST

Traffic entering Memphis ARTCC on or south of J6:

	LIT MARVELL-STAR	
	TXK MARVELL-STAR	
	ELD MARVELL-STAR	
	SQS MARVELL-STAR	1100-0200

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for northbound Caribbean flights originating from Santo Domingo UIR (MDCS) to: FLL	Caribbean flights originating from Santo Domingo UIR (MDCS) to: (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)-STAR	
	or JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL DEKAL-STAR	
	or RETAK A636 ZIN A315 HODGY ZQA 054V CAREY DEKAL DEKAL-STAR	
(Advanced RNAV equipped) RETAK A636 ZIN A315 HODGY ZQA 054V CAREY DEKAL WAVUN(RNAV)-STAR.....		
	or RETAK A636 ZIN A315 HODGY FOWEE-STAR	
MIA	(Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA FLIPR (RNAV)-STAR	
	or JUELE L463 BTLER A555 ZQA FOWEE -STAR	
	or (Advanced RNAV equipped) RETAK A636 ZIN A315 HODGY FLIPR(RNAV)- STAR	
	or RETAK A636 ZIN A315 HODGY FOWEE-STAR	
PBI	JUELE L463 BTLER A555 ZQA 054V PBI.....	
	or RETAK A636 ZIN A315 HODGY ZQA 054V.....	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic overflying Atlanta Center originating north and east of a line from TYS to LAL (except DAY and CVG) for ZTL to MCO:		
.....	PSK CAE SAV OMN BITHO-STAR	1100-0400
.....	or	
.....	J83 SPA CAE SAV OMN BITHO-STAR.....	1100-0400
.....	or	
.....	(GPS or DME/DME-equipped) PSK CAE SAV OMN CWRLD (RNAV)-STAR	1100-0400
.....	or	
.....	(GPS or DME/DME-IRU equipped) J83 SPA CAE SAV OMN CWRLD (RNAV)-STAR	1100-0400
Traffic overflying Atlanta Center Eastbound originating South of a line from DFW to JFK:		
BDL.....	GRD J209 RDU J207 FKN J79 JFK DPK DPK-STAR.....	
BOS	(Turbojet only) GRD J209 RDU J207 FKN J79 JFK ORW-STAR	
.....	or	
.....	(Turboprop only) SIE J121 HTO V308 ORW V16 WOONS	
BWI	SPA J14 RIC OTT-STAR	
.....	or	
.....	(GPS or DME/DME-IRU equipped) SPA J14 RIC RAVNN (RNAV)-STAR	
DCA.....	SPA J14 RIC IRONS-STAR	
.....	or	
.....	(GPS or DME/DME-IRU equipped) SPA J14 RIC OJAAY (RNAV)-STAR	
EWB	SPA J14 J15 FAK DYLIN-STAR	
.....	or	
.....	(GPS or DME/DME-IRU equipped) SPA J14 J51 FAK PHLBO (RNAV)-STAR	
IAD	SPA J14 J51 FAK COATT-STARR.....	
JFK.....	GRD J209 ORF J121 SIE CAMRN-STAR.....	
LGA	AHN J208 HPW J191 PXT KORRY-STAR	
PHL.....	SPA J14 J51 FAK DPNT-STAR	
Northbound from over VXV with destination of CMH:	VXV J91 HNN BREMN-STAR.....	
Traffic overflying Atlanta Center Northbound from over SPA to CMH:	SPA J85 HVQ HNN BREMN-STAR	
Traffic overflying Atlanta Center Northbound from over PSK to CMH:	PSK HVQ HNN BREMN-STAR.....	
Traffic overflying Atlanta Center Southbound originating North and East of line from VXV to LAL (except DAY and CVG) with destinations of FLL, FMY, MCO, MIA, PBI, RSW, SRQ and TPA file:	PSK CAE.....	1100-0300
.....	or	
.....	J83 SPA J85 AMG.....	1100-0300
Traffic overflying Atlanta Center Southbound originating North and East of a line from VXV to LAL (with DAY and CVG) with destinations of FLL, FMY, MCO, MIA, PBI and RSW file:		
.....	VXV J91 ATL OTK	1100-0300
.....	or	
.....	BNA J73 SZW.....	1100-0300
.....	or	
.....	MGM J20 SZW	1100-0300
.....	or	
.....	BNA J73 SZW.....	1100-0300
.....	or	
.....	MGM J20 SZW	1100-0300

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic originating South of Wilmington VORTAC (ILM):		
EWR	ILM J109 FAK DYLIN-STAR.....	1100-0300
	or	
	(GPS or DME/DME.IRU equipped) ILM J109	
FRG	FAK PHLBO (RNAV)-STAR	1100-0300
	(Water-Turbojets) WOLFO AR18 DIW WETRO	
JFK.....	CEBEE SWL J121 SIE CAMRN-STAR	
	(Water-Turbojets) WOLFO AR18 DIW WETRO	
	CEBEE SWL J121 SIE CAMRN-STAR	1100-0300
LGA	ILM TYI HPW J191 PXT KORRY-STAR	1100-0300
Traffic overflying Ormond Beach VORTAC (OMN) destined MIA:		
OMN.....	OMN J79 VRB HEATT-STAR	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to La Romana (MDLR) and Nagua (MDCY):		
ZMA	LETON L450 GTK ASIVO	
	or	
	LNHOM L452 GTK ASIVO.....	
	or	
	LAMER L464 CERDA L453 ASIVO	
	or	
	MLLER M594 CERDA L459 ASIVO	
	or	
	NUCAR L463 RNDLY ASIVO	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Puerto Plata (MDPP):		
ZMA	LETON L450 SEKAR A554 PTA.....	
	or	
	LNHOM L452 GTK A554 PTA	
	or	
	LAMER L453 MACKI B891 PTA	
	or	
	LUCTI L454 MNDEZ M594 CERDA L453	
	MACKI B891 PTA	
	or	
	MLLER M594 CERDA L453 MACKI B891	
	PTA	
	or	
	NUCAR L463 RNDLY SEKAR A554 PTA.....	
	or	
	WATRS M596 PTA	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Santo Domingo (MDS):		
ZMA	LETON L450 SEKAR A554 CDO	
	or	
	LNHOM L452 GTK L450 SEKAR A554 CDO...	
	or	
	LAMER L453 ASIVO CDO	
	or	
	LUCTI L454 MNDEZ M594 CERDA L453	
	ASIVO CDO	
	or	
	MLLER M594 CERDA L453 ASIVO CDO	
	or	
	NUCAR L463 RNDLY SEKAR A554 CDO	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Port au Prince (MTPP):		
ZMA	LETON L450 GTK G444 OBN	
	or	
	LNHOM L452 GTK G444 OBN	
	or	
	LAMER L464 CERDA M594 GTK G444 OBN .	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Saint Johns Island (TAPA):		
ZMA	LETON L451 ELMUC L451 ANU	
	or	
	LNHOM L452 JORGG L451 ELMUC L451 ANU	
	or	
	LAMER L453 CERDA L451 ELMUC L451 ANU	
	or	
	LUCTI L454 ELMUC L451 ANU	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Bridgetown (TBPB):		
ZMA	LETON L451 ELMUC L454 ILURI A555 BGI ...	
	or	
	LNHOM L452 JORGG L451 ELMUC L454 ILURI A555 BGI	
	or	
	LAMER L453 CERDA L451 ELMUC L454 ILURI A555 BGI	
	or	
	LUCTI L454 ELMUC L454 ILURI A555 BGI	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Fort de France (TFFF):		
ZMA	LETON L451 ELMUC L454 ILURI A555 FOF...	
	or	
	LNHOM L452 JORGG L451 ELMUC L454 ILURI A555 FOF	
	or	
	LAMER L453 CERDA L451 ELMUC L454 ILURI A555 FOF	
	or	
	LUCTI L454 ELMUC L454 ILURI A555 FOF....	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Grand Case (TFFG) and Saint Barthelemy (TFFJ) and Oranjestad-Roosevelt (TNCE) and Sanit Maarten (TNCM) and The Valley (TQPF):		
ZMA	LETON L451 ELMUC L451 PJM	
	or	
	LNHOM L452 JORGG L451 ELMUC L451 PJM	
	or	
	LAMER L453 CERDA L451 ELMUC L451 PJM	
	or	
	LUCTI L454 ELMUC L451 PJM	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Point a Pitre (TFFR):		
ZMA	LETON L451 ELMUC L454 LEEEO MODUX R888 PPR	
	or	
	LNHOM L452 JORGG L451 ELMUC L454 LEEEO MODUX R888 PPR	
	or	
	LAMER L453 CERDA L451 ELMUC L454 LEEEO MODUX R888 PPR	
	or	
	LUCTI L454 ELMUC L454 LEEEO MODUX R888 PPR	

Effective
Times
(UTC)

ZMA LETON L451 ELMUC L454 PANMO JETSS
or
LNHOM L452 JORGG L451 ELMUC L454
PANMO JETSS
or
LAMER L453 CERDA L451 ELMUC L454
PANMO JETSS
or
LUCTI L454 ELMUC L454 PANMO JETSS

ZMA LETON L451 ELMUC L454 PANMO COY.....
or
LNHOM L452 JORGG L451 ELMUC L454
PANMO COY
or
LAMER L453 CERDA L451 ELMUC L454
PANMO COY
or
LUCTI L454 ELMUC L454 PANMO COY.....

ZMA	LETON L451 ELMUC BQN
	or
	LNHOM L452 JORGG L451 ELMUC BQN
	or
	LAMER L453 CERDA L451 ELMUC BQN
	or
	LUCTI L454 ELMUC BON

ZMA LETON L451 ELMUC IDAHO BEANO
or
LNHOM L452 JORGG L451 ELMUC IDAHO
BEANO
or
LAMER L453 CERDA L451 ELMUC IDAHO
BEANO
or
LUCTI L454 ELMUC IDAHO BEANO.....

ZMA	LETON L451 ELMUC MAZ
	or
	LNHOM L452 JORGG L451 ELMUC MAZ
	or
	LAMER L453 CERDA L451 ELMUC MAZ
	or
	LUCTI L454 ELMUC MAZ

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Ponce (TJPS):		
ZMA	LETON L451 ELMUC PSE.....	
	or	
	LNHOM L452 JORGG L451 ELMUC PSE	
	or	
	LAMER L453 CERDA L451 ELMUC PSE	
	or	
	LUCTI L454 ELMUC PSE.....	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to San Juan (TJSJ):		
ZMA	LETON L451 ELMUC IDAHO R006	
	or	
	LNHOM L452 JORGG L451 ELMUC IDAHO R006	
	or	
	LAMER L453 CERDA L451 ELMUC IDAHO R006	
	or	
	LUCTI L454 ELMUC IDAHO R006.....	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Golden Rock (TKPK) and Charlestown (TKPN):		
ZMA	LETON L451 ELMUC L454 LEEEO DANDE G633 SKB.....	
	or	
	LNHOM L452 JORGG L451 ELMUC L454 LEEEO DANDE G633 SKB	
	or	
	LAMER L453 CERDA L451 ELMUC L454 LEEEO DANDE G633 SKB	
	or	
	LUCTI L454 ELMUC L454 LEEEO DANDE G633 SKB.....	
Traffic entering Miami Center (ZMA) for southbound Caribbean flights on L452/L453/L454 to Crown Point (TTCP) and Port of Spain (TTPP):		
ZMA	LETON L451 ELMUC G431 DDP G449 POS...	
	or	
	LNHOM L452 JORGG L451 ELMUC G431 DDP G449 POS	
	or	
	LAMER L453 CERDA L451 ELMUC G431 DDP G449 POS	
	or	
	LUCTI L454 ELMUC G431 DDP G449 POS....	
	or	
	GTK L452 ANADA G449 POS	

HIGH ALTITUDE—SINGLE DIRECTION ROUTES

Airway	Segment Fixes	Direction Effective	Effective Times (UTC)
J14	Greensboro, NC to Richmond, VA	Northeast	1100–0300
J37	Coyle, NJ to Spartanburg, SC	Southwest	1100–0300
J40	Wilmington, NC to Richmond, VA	North	1100–0300
J48	Pottstown, PA to Foothills, GA	Southwest	1100–0300
J51	Columbia, SC to Yardley, NJ	Northeast	1100–0300
J52	Columbia, SC to Richmond, VA	Northeast	1100–0300
J55	Florence, SC to HUBBS Int., VA	Northeast	1100–0300
J75	Modena, PA to Greensboro, NC	Southwest	1100–0300
J89	Atlanta, GA to HITTR Int, FL	South	1100–0300
J91	Cross City, FL to Atlanta, GA	North	1100–0300
J109	Wilmington, NC to Buffalo, NY	North	1100–0300
J165	Charleston, SC to Richmond, VA	North	1100–0300
J191	Wilmington, NC to Robbinsville, NJ	North	1100–0300
J193	HUBBS Int., VA to Wilmington, NC	South	1100–0300
J207	Florence, SC to Franklin, VA	Northeast	1100–0300
J208	Athens, GA to Hopewell, VA	Northeast	1100–0300
J209	Greenwood, SC to Norfolk, VA	Northeast	1100–0300

GULF OF MEXICO “Q ROUTES”

These area navigation routes extend more than 12 miles off shore in airspace controlled by the Federal Aviation Administration (FAA). Additional regulatory information for these routes can be found in the Notices to Airmen Publication, Part 3, International Notices to Airmen.

These routes have a Minimum Obstruction Clearance Altitude (MOCA) of 1500 feet (MSL). The Minimum Enroute Altitude (MEA) for these routes is 6000 feet (MSL).

Q100

LEV VORTAC	
REDFN	N28°52.98' / W088°42.11'
ROZZI	N28°18.87' / W086°42.31'
REMIS	N27°53.04' / W085°15.47'
SRQ VORTAC	

Q102

LEZ VORTAC	
BLVNS	N28°22.94' / W088°02.05'
BUNNZ	N28°00.58' / W086°45.76'
BACCA	N27°35.51' / W085°20.66'
CIGAR	N27°29.61' / W084°46.99'
BAGGS	N27°08.06' / W082°50.45'
CYY VORTAC	

Q105

HRV VORTAC	
FATSO	N29°41.40' / W089°47.08'
REDFN	N28°52.98' / W088°42.11'
BLVNS	N28°22.94' / W088°02.05'

Q-ROUTES REGULATORY

Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this AF/D volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note "GNSS REQUIRED".

Route	Segment	DME
Q1	ELMAA-ERAVE	BTG, OLM, HQM, HUH, UBG
	ERAVE-EASON	BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG
	EASON-EBINY	CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT
	EBINY-ENVIE	CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS
	ENVIE-ETCHY	OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS
	ETCHY-POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
Q2	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-HOBOL	BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS
	HOBOL-ITUCO	TFD, GBN, BLH, PXR, TUS, CIE, SSO
	ITUCO-NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
Q3	FEPOT-FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK-FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
	FRFLY-FINER	OED, EUG, RBL, LMT, ENI, CVO, FJS
	FINER-FOWND	OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS
	FOWND-POINT REYES	LIN, ECA, PYE, RBL, SAC, ENI
Q4	BOILE-HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI-SCOLE	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SCOLE-SPTFR	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SPTFR-ZEBOL	EED, IPL, BZA, GBN, TFD, PXR, BLH
	ZEBOL-SKTRR	PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS
	SKTRR-EL PASO	EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME

460	Q-ROUTES	
Route	Segment	DME
Q5	HAROB-HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
	HISKU-HARPR	ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV
	HARPR-HOMEG	CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV
	HOMEG-HUPTU	SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS
	HUPTU-STIKM	OAK, ECA, PYE, LIN, SAC, ENI, RBL
Q7	JINMO-JOGEN	CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA
	JOGEN-JUNEJ	LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG
	JUNEJ-JAGWA	RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS
Q9	JAGWA-AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
	SUMMA-SMIGE	OLM, UBG, SEA, YKM, BTG, ONP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, EPH, MWH
	SMIGE-SUNBE	IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG
	SUNBE-REBRG	RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED, SWR
	REBRG-DERBB	CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA
Q11	PAAGE-PAWLI	EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV, OED, SEA
	PAWLI-PITVE	EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO
	PITVE-PUSHH	FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ
	PUSHH-LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
Q13	All segments	None; GNSS required
Q15	All segments	None; GNSS required
Q19	PLESS-NASHVILLE	ENL, GQO, PXV, BNA, IIU, FAM, BWG, CSX
Q20	CORONA-HONDS	CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME
	HONDS-UNNOS	CNX, INK, CME, TXO, TCC
	UNNOS-FUSCO	FST, ACH, INK, CME, SJT, TXO, TCC
	FUSCO-JUNCTION	ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST
	JONEZ-RAZORBACK	BYP, EOS, TUL, TXK, ADM, RZC, OKM
Q21	GUSTI-OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
	OYSTY-ACMES	RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJI
	ACMES-CATLN	SJI, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI
	FORT SMITH-RAZORBACK	OKM, RZC, EOS, TUL
Q24	LAKE CHARLES-BATON ROUGE	AEX, DAS, LCH, MCB, LFT, BTR
	BATON ROUGE-IRUBE	AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY
Q25	IRUBE-PAYTN	GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
	MEEOW-WALNUT RIDGE	ELD, MEM, LIT, FAM, RZC
	WALNUT RIDGE-WLSUN	MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH
	WLSUN-POCKET CITY	BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE-DEVAC	LIT, JKS, GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH-ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN-PYRMD	EIC, LIT, ELD, OKM, TXK
	PYRMD-HAKAT	ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK
	HAKAT-ESTEE	ARG, LIT, FAM, SGF, MEM
	ESTEE-POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA
	HARES-MEMPHIS	MEM, ARG, LIT, JAN, ELD, SQS
Q29	MEMPHIS-SIDAE	MEM, PXV, BNA, BWG, ARG, ENL
	SIDAE-POCKET CITY	PXV, TTH, BWG, ENL
	SIDON-VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q30	DHART-JODOX	SQS, LIT, TXK
Q31	JODOX-MARVELL	SQS, LIT, ELD, MEM, ARG
	MARVELL-TIIDE	ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH
	TIIDE-POCKET CITY	BWG, PXV, ENL, TTH
	EL DORADO-GAGLE	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK
	GAGLE-CRAMM	JAN, SQS, MEM, ARG, VUZ, BNA, LIT
Q32	CRAMM-NASHVILLE	BWG, MEM, VUZ, BNA, GQO
	NASHVILLE-SWAPP	BWG, IIU, PXV, VXV, BNA, GQO
	DHART-LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
	LITTLE ROCK-PROWL	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL
	TEXARKANA-MATIE	LIT, SWB, TXK, BYP, EIC, ELD, SQS
Q34	MATIE-MEMPHIS	LIT, ARG, MEM, ELD, SQS
	MEMPHIS-SWAPP	BWG, ARG, MEM, MKL, SQS, PXV, BNA, GQO, IIU, VXV
	KIMBERLY-NEERO	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO
Q35	NEERO-WINEN	BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE
	WINEN-CORKR	CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK
	CORKR-DRAKE	TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD

Route	Segment	DME
Q36	RAZORBACK-TWITS	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT
	TWITS-DEPEC	MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU
	DEPEC-NASHVILLE	GQO, BWG, BNA, PXV, IIU
	NASHVILLE-SWAPP	VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT-INCIN	DAS, LCH, SWB, IAH, LFK, HUB, AEX
	INCIN-LAREY	JAN, MCB, SWB, AEX
	LAREY-BESOM	JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA-DOOMS	AEX, SWB, LCH, JAN, HEZ, MCB
	DOOMS-WINAP	JAN, SQS, MEI, MCB
Q42	WINAP-MISLE	MEI, VUZ, JYU
	KIRKSVILLE-STRUK	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX
	STRUK-DANVILLE	ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK
	DANVILLE-MUNCIE	GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM
	MUNCIE-HIDON	FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC
	HIDON-BUBAA	AIR, APE, HNN, CXR, HVQ, EWC, DJB
	BUBAA-PSYKO	AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB
	PSYKO-BRNAN	PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT
	BRNAN-MAALS	EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE
	MAALS-SUZIE	ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK
Q104	SUZIE-EAST TEXAS	JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN
	EAST TEXAS-ELIOT	HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
	DEFUN-HEVVN	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG
	HEVVN-PLYER	PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD
	PLYER-SWABE	PIE, ORL, OMN, SRQ, TAY
	SWABE-ST PETERSBURG	LAL, ORL, OMN, SRQ, PHK, PIE
	ST PETERSBURG-CYPRESS	PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN
	SMELZ-BULZI	LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW
Q106	BULZI-DRABK	AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI
	DRABK-GADAY	MGM, PZD, OTK, JYU, SZW, CEW, SJI
Q108	GADAY-HKUNA	CEW, JYU, MGM, SZW, RRS, PZD, MAI, OTK, GEF, MGR, TAY, AMG, CRG
Q110	THNOR-JAYMC	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI
	JAYMC-RVERO	VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP
	RVERO-KPASA	OMN, PIE, PBI, SRQ, ORL, LAL
	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-GULFR	OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK
Q112	GULFR-FEONA	TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM
	DEFUN-HEVVN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB
	HEVVN-INPIN	JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
Q116	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-GULFR	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK
	GULFR-CEEYA	MCN, AMG, PZD, OTK, SZW, TAY
Q118	KPASA-BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS-LENIE	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN
Q501	VIXIS-GOPHER	ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT, EAU, DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF
	GOPHER-SOBME	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD
	KENPA-GOPHER	SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW, MSP, MNM, ASP, TVC, GEP, RWF, BRD
Q504	GOPHER-SOBME	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD
	NOTAP-CESNA	SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC, SAW, GRB, BRD
	CESNA-HEMDI	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD
Q505	OMAGA-RIMBE	SSM, TVC, ASP, SAW, GRB
	RIMBE-CESNA	SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI
	CESNA-HEMDI	GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB

RNAV Routing Pitch and Catch Points

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by **pitch** (entry into) and **catch** (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: <http://sua.faa.gov/sua/Welcome.do>. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.

HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non-restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIE.

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque	ABQ, GUP, HANOS or ZUN
Austin	ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV
Boca Raton, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Burbank includes Santa Monica and Van Nuys	GMN, MARKS or DAG LAS or HEC EED or PMD BLH
Chicago Terminal Area	IOW, PLL275065, MZV or BAE
Dallas/Fort Worth Terminal Area	ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK ELD, SWB or Aircraft destined the Chicago terminal area Except MDW EAKER MIDEE BDF BRADFORD-STAR Or MLC J105 SGF BDF BRADFORD-STAR
Denver Terminal Area	PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE, CABET, WEEDS, OR BINKE
Fort Lauderdale (or) Fort Lauderdale Executive	THNDR KPASA Q118 LENIE or THNDR KPASA Q116 CEEYA or THNDR KPASA Q110 FEONA or THNDR SMELZ Q106 GADAY or THNDR SMELZ Q106 BULZI
Houston Bush	LIT, ELD, MLC, JCT or Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE-RNAV STAR or Aircraft joining J37 to the northeast, GUSTI SID GUSTI Q22 CATLN or Aircraft joining J42 to the northeast, EL DORADO SID ELD Q32 J42

Houston Hobby	LIT, ELD, MLC, JCT, or Aircraft joining J42 to the northeast, EL DORADO SID ELD Q32 J42
Jacksonville, FL	TAY
Kansas City Terminal Area	TIFTO, CATTS or KENTN
Los Angeles, includes Ontario	GMN, RZS or DAG LAS or TRM EED or TRM PKE
Las Vegas	DOBNE, MOSBI, NICLE, TRALR or ZELOT
Long Beach includes Orange County	GMN SNS, EHF, LANDO or TRM PKE or TRM EED
Memphis	BNA, HAAWK, SALMS or SQS
Miami Terminal Area	WINCO KPASA Q118 LENIE or WINCO KPASA Q116 CEEYA or WINCO KPASA Q110 FEONA or WINCO SMELZ Q106 GADAY or WINCO SMELZ Q106 BULZI
Milwaukee	GREAS
Minneapolis Terminal Area*	ONL, ABR, FAR, OBH, OVR, FOD
New Orleans Terminal Area	AEX, MEI, SQS, KAPLN
Orlando Terminal Area	WEBBS BRUTS Q118 LENIE or WEBBS GULFR Q116 CEEYA or WEBBS BULZI Q106 GADAY or WEBBS FEONA or WEBBS BULZI
Palm Beach, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Palm Springs	TRM JOTNU BLD or TRM EED or TRM PKE
Phoenix	CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK
Portland, OR	PDT, TIMEE

Salt Lake City	HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI or TCH J56 CHE or TCH J173 EKR
Saint Louis	VIH, MAP, MYERZ, MCM or HLV MCI
San Antonio Terminal Area	FUZ, SJT, MQP, ABI or Aircraft North of LFK, LFK or Aircraft South of HUB, ELA or Aircraft South of LFK and North of HUB LCH
San Diego	TRM EED or TRM PKE or TRM JOTNU BLD
San Francisco Bay Area Oakland San Jose	GALLI, INSLO, HAROL JSICA GALLI, INSLO, HAROL JSICA GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

*MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area	Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA or Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVA or MEM or Aircraft through ZME airspace from ZID airspace west of a line from VHP to BWG, BNA or Aircraft through ZME airspace from ZID airspace east of a line from VHP to BWG, BWG or Aircraft through ZME airspace from ZFW airspace, MEM or MEI HONIE (RNAV)–STAR or PATYN HONIE (RNAV)–STAR
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Baltimore–Washington*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA or VUZ
Boston*	GEP, CRL, ECK, IIU, BNA or VUZ
Buffalo*	GEP, CRL
Hartford Bradley*	GEP, CRL
Canton–Akron*	GIJ, VHP, GEP
Charlotte	BNA, VUZ
Cincinnati Terminal Area	BNA, PXV or Aircraft north of SLC, JOT or Aircraft over or south of SLC, ENL or SLC or SFO departures, ENL, JOT
Cleveland Terminal Area*	OBK
Detroit Terminal Area	BAE MKG POLAR–STAR or VHP FWA MIZAR–STAR
Detroit Young	VHP FWA or LAN SPRTN–STAR
Indianapolis Terminal Area	BIB, SPI, JOT
Louisville	ENL, MEM
Newark*	GEP, VHP, FLM, IIU, BNA, VUZ or IOW GIJ J554 CRL J584 SLT FQM
New York Kennedy*	GEP, VHP, FLM, IIU, BNA, VUZ or DBQ J94 PMM J70 LVZ LENDY–STAR
New York LaGuardia*	GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area*	GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ
Pittsburgh Terminal Area*	VHP, GIJ, BAE, GEP
Pontiac	LFD, LAN, VHP, FWA, GEP
Providence	JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ
Raleigh–Durham	FLM, IIU, BNA, VUZ
Toronto Terminal Area	ECK, SVM, SSM, GEP
Teterboro*	GEP, VHP, CRL, BNA, VUZ
Washington Dulles/National*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ
White Plains*	GEP, VHP, CRL, FLM, IIU, BNA, VUZ
Willow Run*	LAN, LFD, VHP, FWA, GEP

*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501

or
Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP

or
Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area	CURLY CURLY–STAR or ESPAN FRIHO–STAR or LAVAN LAVAN–STAR or FTI FRIHO–STAR or MIERA MIERA–STAR
Austin Terminal Area	Aircraft west of a north–south line at LFK, BLEWE or Aircraft east of a north–south line at LFK, IDU or LLO
Boca Raton, FL	CEW DEFUN Q112 INPIN SHDAY (RNAV)–STAR Aircraft through ZHU remain south of ZME and ZTL airspace or DEFUN Q112 INPIN SHDAY (RNAV)–STAR Aircraft through ZHU remain south of ZME and ZTL airspace or SZW INPIN SHDAY (RNAV)–STAR
Chicago Midway	CVA MOTIF–STAR or PIA MOTIF–STAR or DBQ CVA MOTIF–STAR or LMN MOTIF–STAR
Chicago O'Hare Terminal Area	GEP DLL MSN JVL JANESVILLE–STAR or TVC PULLMAN–STAR or FOD DBQ JVL JANESVILLE–STAR or MCW JANESVILLE–STAR or GCK IRK BRADFORD–STAR
Dallas/Fort Worth Terminal Area	IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM or Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW or Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS or Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area	OATHE DANDD-STAR
	or
	HGO QUAIL-STAR
	or
	LOPEC-STAR
	or
	ALS LARKS-STAR
	or
	HBV POWDR-STAR
	or
	EKR TOMSN-STAR
	or
	CHE TOMSN-STAR
	or
	BFF LANDR-STAR
	or
	LBF SAYGE-STAR
	or
	HCT SAYGE-STAR
	or
	RSK LARKS-STAR
	or
	LAA QUAIL-STAR
	or
	GCK J154 RYLIE DANDD-STAR
	or
	OCS J154 ALPOE RAMMS-STAR
	or
	YANKI J114 SNY LANDR-STAR
	or
	Aircraft filed BIL or east, MBW RAMMS-STAR
	CEW DEFUN Q104 PIE SWAGS (RNAV)-STAR
Ft Lauderdale or Ft Lauderdale Executive	Aircraft through ZHU airspace remain south ZME and ZTL airspace
	or
Houston Bush	SZW HEVVN Q104 PIE SWAGS (RNAV)-STAR
	CRP, CVE, LLO, LUKIY, SAT
	or
	Aircraft south and east of LLA, JEPEG
	or
	MISLE Q40 AEX
	or
	Aircraft north and east of SJI, SJI
	or
	Aircraft east of PXV, PXV Q31 DHART SWB
	or
Houston Hobby	Aircraft north and west of PXV, PROWL Q33 DHART SWB
	CRP, ELLVR, SAT, SWB
	or
	Aircraft south and east of GIRLY, KCEEE
	or
	Aircraft north and east of SJI, SJI
	or
	BESOM Q38 ROKIT ROKIT-STAR
	or
	Aircraft east of PXV, PXV Q29 HARES SWB
	or
Jacksonville	Aircraft north and west of PXV, PROWL Q33 DHART SWB
	GADAY ZOOSS TAY
	Aircraft through ZHU airspace remain south of ZME and ZTL airspace
	or
	ZOOSS TAY

John Wayne—Orange County	HEC, PGS, BLD or Aircraft south of TBC from ZAB airspace, HIPPI
Kansas City Terminal Area	LMN BRAYMER—STAR or PWE ROBINSON—STAR or EMP JHAWK—STAR
Las Vegas	DILCO, LIDAT, IGM or Aircraft over PGA or north of PGA KSINO or Aircraft south of PGA PGS LYNSY
Los Angeles Terminal Area	Aircraft North of TBC, HEC, PGS or Aircraft South of TBC from ZAB airspace, HIPPI, MESSI
Miami Terminal Area	CEW DEFUN Q104 CYY DEEDS (RNAV)—STAR Aircraft through ZHU airspace remain south ZME and ZTL and or SZW HEVVN Q104 CYY DEEDS (RNAV)—STAR
Minneapolis Terminal Area	Aircraft from north, west, south, FAR GOPHER—STAR or RWF SKETR—STAR or ALO KASPR—STAR or BRD GOPHER—STAR or BAE EAU CLAIRE—STAR or FOD TWOLF—STAR
Memphis Terminal Area	ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD
Naples, FL	CEW DEFUN Q104 PLYER PIKKR (RNAV)—STAR Aircraft through ZHU AIRSPACE remain south of ZME and ZTL and or SZW HEVVN Q104 PLYER PIKKR (RNAV)—STAR
Nashville	CCT, GHM, GUITR, TINGS, VOLLS
New Orleans Terminal Area	BLUEZ, GPT, LCH, MCB, TBD, FATSO
Oakland	ILA or KATTS PAMMY or Aircraft over or south of a line ILC J16 DVC REANA KATTS PAMMY or Aircraft from north of ILC, JOPER PAMMY or KATTS PAMMY or Aircraft over or south of ILC, REANA KATTS PAMMY
Orlando Terminal Area	GADAY Q108 CLAWZ LEESE—STAR Aircraft through ZHU airspace remain south of ZME/ZTL and or OTK LEESE—STAR

Palm Beach, FL	CEW DEFUN Q112 INPIN GULLO (RNAV)–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW INPIN GULLO (RNAV)–STAR
Phoenix	CORKR DRK or Aircraft from ZDV airspace, GUP or Aircraft from ZAB airspace, ZUN, MOHAK, SSO or VYLLA TUS
Phoenix Satellites	FLG, SSO, MOHAK or VYLLA, TUS
Portland, OR Terminal Area	ARNIT BONVL–STAR or LARNO BONVL–STAR or MOXEE MOXEE–STAR
St. Louis Terminal Area	SGF TRAKE–STAR or BUM TRAKE–STAR or ANX TRAKE–STAR or LMN IRK RIVRS–STAR or RBS VANDALIA–STAR
Salt Lake City Terminal Area	JNC J12 HELPR SPANE–STAR or EKR MTU SPANE–STAR or BCE DTA–TCH or MLF DTA–TCH or BVL BONNEVILLE–STAR or BYI BEARR–STAR or PIH BEARR–STAR or DBS BRIGHAM CITY–STAR or JAC BRIGHAM CITY–STAR or BPI BRIGHAM CITY–STAR or OCS BRIGHAM CITY–STAR
San Diego Terminal Area	EED, LAX, GBN
Santa Ana	HEC, PGS, BLD, HIPPI
San Antonio Terminal Area	IDU, CSI, JCT, LLO, CRP, LRD or West of a north–south line at LFK, BLEWE or East of a north–south line at LFK, IDU

San Francisco	FMG GOLDEN GATE–STAR or MVA MODESTO–STAR or ENI GOLDEN GATE–STAR or OAL MODESTO–STAR or South of a line ILC to DVC, REANA KATTS OAL MODESTO–STAR
San Jose	FMG HYP EL NIDO–STAR or OAL HYP EL NIDO–STAR or ENI GOLDEN GATE–STAR or South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO–STAR
Seattle Terminal Area	Aircraft From northeast, southeast, south, TEMPL GLASR–STAR or SUNED CHINS–STAR or BTG OLMYPIA–STAR
Southwest Florida Airports RSW and FMY	CEW DEFUN Q104 SWABE JOSFF–STAR Aircraft through ZHU airspace remain south of ZME and Z airspace or SZW HEVVN Q104 SWABE JOSFF–STAR
Tampa Terminal Area	CEW DEFUN Q104 HEVVN DARBS–STAR Aircraft through ZHU airspace remain south of ZME and Z airspace or SZW DARBS–STAR
Tucson	DRK PXR or MOHAK GBN

VISUAL FLIGHT RULES (VFR) WAYPOINTS

VFR Waypoint names consist of five letters beginning with "VP". Stand-alone VFR Waypoints are portrayed on VFR Charts using the same four-point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag.

The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPAXI	_____	N38°34.57' /W076°20.38'
VPONX	_____	N39°06.65' /W076°55.92'
VPPOF	_____	N38°56.32' /W076°36.90'

BOSTON HELICOPTER CHART

VPBAY	_____	N42°16.17' /W070°49.48'
VPBLT	_____	N42°19.67' /W070°53.40'
VPCGS	_____	N42°22.08' /W071°03.13'
VPEVS	_____	N42°23.52' /W071°04.10'
VPFEN	_____	N42°12.58' /W071°08.88'
VPFRE	_____	N42°25.03' /W071°12.32'
VPGLV	_____	N42°21.88' /W070°52.18'
VPHAM	_____	N42°30.13' /W071°07.15'
VPPIK	_____	N42°20.37' /W071°15.93'
VPQUA	_____	N42°12.10' /W071°04.78'
VPQUB	_____	N42°12.60' /W070°59.83'
VPSPF	_____	N42°24.20' /W071°09.47'
VPTOB	_____	N42°31.42' /W070°59.82'
VPWAN	_____	N42°36.88' /W071°19.45'

BOSTON TERMINAL AREA CHART

VPCOH	COHASSET	N42°13.58' /W070°48.94'
VPCUT	CUTTYHUNK HARBOR	N41°25.50' /W070°55.03'
VPFRA	FRAMINGHAM SHOPPING CENTER	N42°18.16' /W071°23.65'
VPHOL	WOODS HOLE	N41°31.06' /W070°40.60'
VPHUL	HULL	N42°18.20' /W070°55.30'
VPLPT	NANTUCKET GREAT POINT	N41°23.41' /W070°02.78'
VPNED	NEEDHAM TOWERS	N42°18.51' /W071°14.64'
VPPEA	PEABODY SHOPPING CENTER	N42°32.52' /W070°56.69'
VPROC	ROCKINGHAM RACE TRACK	N42°46.29' /W071°13.57'
VPSCI	SCITUATE	N42°11.89' /W070°43.69'
VPTPT	NANTUCKET THIRD POINT	N41°18.51' /W070°03.37'
VPTUC	TUCKERNUCK	N41°18.31' /W070°15.43'
VPWAK	WAKEFIELD	N42°30.72' /W071°05.24'
VPWAN	WANG TOWERS	N42°36.88' /W071°19.45'

CHARLOTTE SECTIONAL CHART

VPATO	_____	N34°37.37' /W076°31.47'
VPAVA	_____	N34°57.00' /W077°16.50'
VPBFE	_____	N32°16.38' /W080°47.50'
VPBRA	_____	N36°13.75' /W076°08.08'
VPGCE	_____	N36°03.90' /W076°36.42'
VPGHI	_____	N35°15.30' /W075°31.25'
VPGIO	_____	N35°32.50' /W076°37.33'
VPKJU	_____	N35°26.58' /W076°10.22'
VPLMN	_____	N34°55.43' /W077°46.42'
VPMAB	_____	N34°42.20' /W077°03.50'
VPNPO	ISLE OF PALMS	N32°47.78' /W079°46.45'
VPOKY	_____	N35°06.53' /W075°59.17'
VPREP	_____	N32°33.98' /W080°21.82'
VPRRS	_____	N33°25.45' /W079°07.60'
VPUMO	_____	N35°35.63' /W075°28.08'
VPWZO	_____	N36°00.87' /W075°40.07'
VPZIE	_____	N32°01.62' /W080°53.42'

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VFR WAYPOINTS

DENVER TERMINAL AREA CHART/FLYWAY CHART

VPBEN	_____	N39°44.28' /W104°26.00
VPFTG	_____	N39°44.35' /W104°32.75
VPNIC	NORTH INTERCHANGE	N39°58.90' /W104°59.27

HOUSTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPBWY	_____	N29°46.25' /W095°09.24
VPDTN	_____	N29°46.59' /W095°22.01
VPGLA	_____	N30°08.32' /W095°06.62
VPGLB	_____	N30°07.80' /W094°55.70
VPKTY	_____	N29°47.05' /W095°44.92
VPPLN	_____	N30°08.80' /W095°50.42
VPRSN	_____	N29°30.00' /W095°41.00
VPSND	_____	N29°23.13' /W095°28.86
VPSNT	_____	N29°49.29' /W094°53.94
VPTNE	_____	N29°47.48' /W095°03.34
VPTNW	_____	N29°47.06' /W095°33.81
VPTRK	_____	N29°24.06' /W095°10.44

JACKSONVILLE SECTIONAL CHART

VPAFI	_____	N31°49.35' /W081°51.07
VPAFY	_____	N30°07.00' /W081°21.33
VPBEC	_____	N29°46.25' /W081°15.10
VPCJA	_____	N29°30.00' /W081°06.00
VPCKY	_____	N28°46.50' /W082°34.00
VPCNY	_____	N28°30.00' /W080°45.00
VPDAD	DADE CITY	N28°22.57' /W082°11.25
VPDAR	_____	N31°22.38' /W081°24.13
VPDFI	_____	N29°00.17' /W081°20.85
VPDUT	_____	N27°37.70' /W082°09.10
VPEAR	CLEARWATER BEACH	N27°58.67' /W082°49.83
VPEGV	_____	N29°39.97' /W081°24.87
VPFFU	_____	N28°57.08' /W081°00.33
VPGPE	ST PETE BEACH	N27°43.50' /W082°44.67
VPHAA	_____	N30°04.02' /W083°40.02
VPHUC	_____	N28°19.87' /W082°43.77
VPIWA	MIDWAY	N31°48.33' /W081°25.85
VPJMY	_____	N29°26.92' /W081°18.27
VPKER	LAKE PARKER	N28°04.00' /W081°56.00
VPLEV	_____	N28°48.00' /W080°52.00
VPLJA	_____	N29°00.00' /W080°51.00
VPMAI	_____	N30°50.02' /W084°56.63
VPTLH	_____	N30°32.70' /W083°52.22
VPXZY	_____	N29°35.00' /W083°10.00
VPYIW	_____	N30°42.28' /W081°27.25
VPZIE	_____	N32°01.62' /W080°53.42

KANSAS CITY SECTIONAL CHART

VPAGO	_____	N37°50.33' /W090°29.03
VPBEK	_____	N37°15.07' /W092°30.67
VPDEN	_____	N37°46.75' /W092°19.20
VPENE	_____	N37°44.75' /W091°55.78
VPESS	_____	N36°59.48' /W091°00.88
VPFME	_____	N37°41.00' /W092°38.33
VPGXY	_____	N37°15.50' /W091°40.17
VPMBE	_____	N37°11.08' /W090°27.92
VPMKE	_____	N37°24.47' /W092°40.00
VPROV	_____	N38°01.72' /W091°12.81
VPUTT	_____	N37°52.05' /W092°01.20

SE. 23 SEP 2010 to 18 NOV 2010

WAYPOINT IDENT

VPWOC
VPWRO
VPXIZ

COLLOCATED VFR CHECKPOINT

LOCATION

N37°18.03' /W092°18.63'
N37°39.12' /W091°45.68'
N37°26.60' /W092°05.42'

KANSAS CITY TERMINAL AREA CHART

VPATN	ATCHISON	N39°33.62' /W095°07.65'
VPBG5	BLUE SPRINGS	N39°01.82' /W094°16.32'
VPBSP	BONNER SPRINGS	N39°03.78' /W094°53.10'
VPCHB	CHOUTEAU BRIDGE	N39°08.77' /W094°32.03'
VPDSO	DE SOTO	N38°58.68' /W094°58.48'
VPESG	EXCELSIOR SPRINGS	N39°20.68' /W094°13.77'
VPGTB	GARRETSBURG	N39°40.92' /W094°41.45'
VPLAT	LATHROP WATER TANK	N39°32.87' /W094°20.00'
VPLEN	LENEXA	N38°57.77' /W094°43.68'
VPLVL	LONGVIEW LAKE	N38°54.63' /W094°28.28'
VPMCL	MC LOUTH	N39°11.65' /W095°12.50'
VPNHA	NASHUA	N39°17.83' /W094°34.80'
VPSCX	SPORTS COMPLEX	N39°03.00' /W094°29.02'
VP5KR	SUGAR CREEK REFINERY	N39°07.00' /W094°27.02'
VPSPK	SWOPE PARK	N39°00.47' /W094°31.93'
VPTSK	TWIN STACKS	N39°09.05' /W094°38.22'
VPWOF	WORLDS OF FUN	N39°10.42' /W094°29.12'

KLAMATH FALLS SECTIONAL CHART

VPORO		N43°57.38' /W123°02.22'
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LOS ANGELES HELICOPTER CHART

VPANA		N33°44.43' /W117°50.03'
VPART	MAGNOLIA	N33°51.45' /W117°58.92'
VPAUT	HWY 91 & 55	N33°50.63' /W117°49.57'
VPBOB		N33°59.60' /W117°21.45'
VP5CAR		N33°49.90' /W118°17.23'
VP5CNG	CONEJO GRADE US HWY 101	N34°12.54' /W118°59.61'
VP5COR		N33°52.90' /W117°32.95'
VP5CRX		N34°01.40' /W117°44.88'
VP5CSU	CSU CHANNEL ISLANDS	N34°09.76' /W119°02.53'
VP5DOW		N33°56.47' /W118°05.80'
VP5ELA		N34°00.98' /W118°10.35'
VP5ETY		N33°38.70' /W117°44.12'
VP5FCB		N34°02.03' /W118°01.63'
VP5FPL	OXNARD FINANCIAL PLAZA	N34°13.71' /W119°10.39'
VP5GOL		N34°09.33' /W118°17.37'
VP5IMP		N33°55.85' /W118°16.85'
VP5KAT		N33°48.23' /W117°54.22'
VP5KEL		N34°03.92' /W117°48.40'
VP5LAC		N34°03.75' /W118°14.93'
VP5LLU		N34°03.85' /W117°17.82'
VP5LQM	QUEEN MARY	N33°45.17' /W118°11.37'
VP5LRT	SANTA ANITA RACE TRACK	N34°08.45' /W118°02.65'
VP5LVT	VINCENT THOMAS BRIDGE	N33°44.97' /W118°16.32'
VP5MDR		N33°59.27' /W118°23.97'
VP5NEW	NEWHALL PASS	N34°20.18' /W118°30.72'
VP5NUY		N34°09.63' /W118°28.18'
VP5PCH		N33°28.07' /W117°40.32'
VP5PKC		N34°03.32' /W118°12.83'
VP5POR		N34°00.10' /W117°50.12'
VP5RRT		N33°59.37' /W118°16.83'
VP5SEP		N34°05.80' /W118°28.63'
VP5SFR		N34°17.45' /W118°28.07'
VP5STC	SATICOY BRIDGE	N34°16.62' /W119°08.34'
VP5STK		N34°13.97' /W118°24.60'

476 VFR WAYPOINTS		
LOS ANGELES SECTIONAL CHART		
WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCNG	CONEJO GRADE US HWY 101	N34°12.54' /W118°59.61
VPCSU	CSU CHANNEL ISLANDS	N34°09.76' /W119°02.53
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71' /W119°10.39
VPSTC	SATICOY BRIDGE	N34°16.62' /W119°08.34

LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART		
VPCNG	CONEJO GRADE US HWY 101	N34°12.54' /W118°59.61
VPCSU	CSU CHANNEL ISLANDS	N34°09.76' /W119°02.53
VPGTY	GETTY CENTER	N34°04.84' /W118°28.66
VPLBP	BANNING PASS	N33°56.05' /W116°59.63
VPLCC	CHAFFEY COLLEGE	N34°08.87' /W117°34.33
VPLCP	CAJON PASS	N34°18.07' /W117°27.68
VPLDL	DISNEYLAND	N33°48.72' /W117°55.13
VPLDP	DANA POINT	N33°27.62' /W117°42.87
VPLDS	DODGER STADIUM	N34°04.42' /W118°14.42
VPLFX	91/605 INTERCHANGE	N33°52.38' /W118°06.08
VPLGP	GRIFFITH PARK OBSERVATORY	N34°07.10' /W118°18.02
VPLHF	110/405 FWYS	N33°51.42' /W118°17.10
VPLHP	HUNTINGTON PIER	N33°39.32' /W118°00.25
VPLKH	KING HARBOR	N33°50.75' /W118°23.88
VPLLC	L.A. COLISEUM	N34°00.83' /W118°17.27
VPLLM	LAKE MATHEWS	N33°50.58' /W117°26.85
VPLMM	MAGIC MOUNTAIN	N34°26.20' /W118°36.28
VPLMS	MILE SQUARE PARK	N33°43.40' /W117°56.77
VPLPD	PRADO DAM	N33°53.40' /W117°38.48
VPLPP	PACIFIC PALISADES	N34°02.13' /W118°32.15
VPLQM	QUEEN MARY	N33°45.17' /W118°11.37
VPLRB	ROSE BOWL	N34°09.67' /W118°10.05
VPLRT	SANTA ANITA RACE TRACK	N34°08.45' /W118°02.65
VPLSA	SANTA ANA CANYON	N33°52.03' /W117°42.68
VPLSB	SANTA FE FLOOD BASIN	N34°07.72' /W117°57.30
VPLSC	STATE COLLEGE	N33°52.97' /W117°53.13
VPLSF	SAN FERNANDO RESERVOIR	N34°17.87' /W118°29.00
VPLSP	SIGNAL PEAK	N33°36.33' /W117°48.63
VPLSR	HAWTHORNE & 405 FREEWAY	N33°53.07' /W118°21.13
VPLSS	SANTA SUSANA PASS	N34°16.00' /W118°38.43
VPLTW	TUJUNGA WASH & FOOTHILL	N34°16.40' /W118°20.30
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97' /W118°16.32
VPLWT	WATER TANK	N34°10.82' /W118°46.27
VPNEW	NEWHALL PASS	N34°20.18' /W118°30.72
VPSTC	SATICOY BRIDGE	N34°16.62' /W119°08.34

MIAMI SECTIONAL CHART		
VPACH	HOLLYWOOD BEACH	N26°00.92' /W080°06.93
VPBOV	_____	N27°57.00' /W080°46.75
VPCLE	_____	N26°27.07' /W082°00.88
VPCTE	_____	N26°09.28' /W081°20.70
VPDAD	DADE CITY	N28°22.57' /W082°11.25
VPDUT	_____	N27°37.70' /W082°09.10
VPDZE	_____	N27°19.00' /W080°44.17
VPEAR	CLEARWATER BEACH	N27°58.67' /W082°49.83
VPEDY	ANDYTOWN TOLLGATE	N26°08.78' /W080°28.00
VPFAH	_____	N26°25.40' /W081°29.67
VPGPE	ST PETE BEACH	N27°43.50' /W082°44.67
VPHRO	_____	N27°05.97' /W082°12.20
VPHUC	_____	N28°19.87' /W082°43.77
VPIBR	_____	N27°12.47' /W081°40.22
VPKER	LAKE PARKER	N28°04.00' /W081°56.00
VPKOE	_____	N24°40.08' /W081°20.55
VPLYY	_____	N24°49.07' /W080°49.17
VPMBO	GULFSTREAM PARK	N25°58.57' /W080°08.17
VPOBA	PUMPING STATION	N26°28.30' /W080°26.75
VPRBI	_____	N25°50.67' /W080°55.18
VPRNL	RANGER STATION	N25°22.92' /W080°36.58
VPWMO	_____	N27°03.00' /W080°35.00

MIAMI TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPACH	HOLLYWOOD BEACH	N26°00.92' /W080°06.93'
VPEDY	ANDYTOWN TOLLGATE	N26°08.78' /W080°28.00'
VPMBO	GULFSTREAM PARK	N25°58.57' /W080°08.17'
VPOBA	PUMPING STATION	N26°28.30' /W080°26.75'
VPRBI		N25°50.67' /W080°55.18'
VPRNL	RANGER STATION	N25°22.92' /W080°36.58'

NEW ORLEANS SECTIONAL CHART

VPGPT		N30°25.95' /W089°05.62'
VPLIP	PHILLIPS INLET	N30°16.23' /W085°59.25'
VPMAI		N30°50.02' /W084°56.63'
VPMOB		N30°23.00' /W088°31.72'
VPRAM		N30°18.95' /W089°35.88'
VPRER		N30°13.87' /W085°20.67'
VPRIV		N30°54.85' /W087°57.82'
VPSAW		N30°49.65' /W089°07.42'
VPTHR		N30°19.93' /W087°08.50'

NEW YORK HELICOPTER CHART

VPJAY		N40°59.00' /W073°07.00'
VPLYD		N40°57.37' /W073°29.59'
VPROK		N40°52.70' /W073°44.24'

PHOENIX TERMINAL AREA CHART/FLYWAY CHART

VPALL	ALLENVILLE	N33°20.97' /W112°35.20'
VPAQU	AQUEDUCT PUMPING STATION	N33°40.05' /W112°41.38'
VPARM	ARROWHEAD MALL	N33°38.52' /W112°13.48'
VPAWG	AHWATUKEE GOLF COURSE	N33°19.98' /W111°59.08'
VPAMZ	ARIZONA MILLS	N33°23.43' /W111°57.88'
VPBAR	BARTLETT DAM	N33°49.10' /W111°37.92'
VPCCC	COUNTRY CLUB & CANAL	N33°30.73' /W111°50.37'
VPCLN	CANAL	N33°33.23' /W111°46.89°
VPFRB	FIREBIRD LAKE	N33°16.35' /W111°58.10'
VPFTN	FOUNTAIN HILLS	N33°36.12' /W111°42.72'
VPGLX	GILA CROSSING	N33°16.55' /W112°10.08'
VPGPP	GLENDALE POWER PLANT	N33°33.27' /W112°13.00'
VPMAR	MARICOPA	N33°03.42' /W112°02.88'
VPMHS	MESQUITE HIGH SCHOOL	N33°20.53' /W111°49.58'
VPNRV	NEW RIVER	N33°55.08' /W112°08.45'
VPNTT	NORTH TEST TRACK	N33°03.50' /W111°55.83'
VPPIR	PIR	N33°22.52' /W112°18.90'
VPQTR	QUINTERO GOLF COURSE	N33°49.53' /W112°23.58'
VPRVC	RIO VERDE COMMUNITY	N33°44.37' /W111°39.62'
VPSMC	SOUTH MOUNTAIN COLLEGE	N33°23.02' /W112°02.12'
VPSQP	SQUAW PEAK	N33°32.83' /W112°01.27'
VPSSS	SUPERSTITION SPRINGS MALL	N33°23.50' /W111°41.37'
VPSTN	SANTAN MOUNTAINS	N33°09.23' /W111°40.92'
VPSTT	SOUTH TEST TRACK	N32°56.25' /W111°59.67'
VPZZZ		N33°20.18' /W111°26.53'

ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

VPAGN	TV ANTENNA	N38°32.08' /W090°22.42'
VPBPE		N38°23.80' /W090°20.38'
VP CJY	HOLIDAY SHORES	N38°55.00' /W089°56.00'
VPCOJ	WINFIELD DAM	N39°00.28' /W090°41.23'
VPDFA	JEFFERSON BARRACKS BRIDGE	N38°29.18' /W090°16.47'
VPEAZ	BUSCH STADIUM	N38°37.43' /W090°11.55'
VPEDZ	WATER TANKS	N38°45.30' /W090°34.87'
VPEGR	GAS TANKS	N38°35.80' /W090°19.32'
VPEOX	ST PETERS	N38°47.17' /W090°39.25'

478		VFR WAYPOINTS
WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPFAI	HOWELL ISLAND	N38°40.00' /W090°43.00
VPFFY	_____	N38°55.37' /W090°17.30
VPGPF	_____	N38°35.60' /W090°26.92
VPGVI	_____	N38°32.30' /W090°27.80
VPHRQ	CHAIN OF ROCKS BRIDGE	N38°45.88' /W090°10.42
VPIBO	WATERLOO	N38°20.00' /W090°09.00
VPJMU	HORSESHOE LAKE	N38°41.00' /W090°05.00
VPKNY	PACIFIC	N38°29.00' /W090°44.00
VPLES	ST CHARLES	N38°47.00' /W090°30.00
VPLIW	SIX FLAGS	N38°30.67' /W090°40.47
VPLXU	GATEWAY ARCH	N38°37.50' /W090°11.00
VPNSY	WOOD RIVER REFINERIES	N38°50.00' /W090°05.00
VPNZY	WENTZVILLE	N38°48.83' /W090°50.98
VPRAZ	JERSEYVILLE	N39°07.00' /W090°20.00
VPRMO	FOREST PARK	N38°38.00' /W090°17.00
VPWKO	COLUMBIA	N38°27.00' /W090°12.00
VPXXI	MILLSTADT	N38°27.50' /W090°05.68
VPYID	MOSENTHEIN ISLAND	N38°43.00' /W090°12.25

SALT LAKE CITY HELICOPTER CHART

VPAIR	SALT AIR	N40°44.85' /W112°11.22
VPBEE	SOUTH INTERCHANGE	N40°38.18' /W111°54.23
VPBRN	BARN	N40°54.28' /W112°10.15
VPCAP	STATE CAPITOL	N40°46.67' /W111°53.25
VPCHS	_____	N40°42.28' /W112°05.92
VPCOP	BINGHAM COPPER MINE	N40°31.38' /W112°09.00
VPCWY	CAUSEWAY	N41°05.37' /W112°07.17
VPCYN	PARLEYS CANYON	N40°42.67' /W111°48.10
VPFPC	FREE PORT CENTER	N41°05.92' /W112°02.27
VPFPK	FRANCIS PEAK	N41°01.98' /W111°50.30
VPGFS	GARFIELD STACK	N40°43.28' /W112°11.88
VPHVE	SPAGHETTI BOWL	N40°43.50' /W111°54.22
VPJRT	JORDAN RIVER TEMPLE	N40°35.02' /W111°55.58
VPKSL	KSL ANTENNA	N40°46.80' /W112°05.80
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08' /W111°53.57
VPMDH	MCKAY DEE HOSPITAL	N41°11.50' /W111°57.08
VPMMT	MICROWAVE TOWERS	N40°48.50' /W111°53.37
VPMSH	_____	N41°01.67' /W112°02.47
VPNSL	_____	N40°50.15' /W111°54.90
VPNTP	_____	N41°03.57' /W112°14.23
VPOGE	GRAIN ELEVATOR	N41°13.13' /W112°00.45
VPOPS	POWER STATION	N41°20.38' /W112°02.78
VPPEN	STATE PRISON	N40°29.88' /W111°53.62
VPPPT	PROMONTORY POINT	N41°12.28' /W112°25.73
VPPTM	POINT OF THE MOUNTAIN	N40°27.42' /W111°54.83
VPPVO	PROVO CANYON	N40°18.77' /W111°39.45
VPRWY	_____	N40°48.48' /W112°00.33
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83' /W111°54.85
VPTIP	SOUTH TIP	N40°50.93' /W112°10.92
VPWBR	WEBER CANYON	N41°08.17' /W111°54.83
VPWBT	_____	N40°38.00' /W112°03.33

SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

VPAIR	SALT AIR	N40°44.85' /W112°11.22
VPBEE	SOUTH INTERCHANGE	N40°38.18' /W111°54.23
VPBRN	BARN	N40°54.28' /W112°10.15
VPCAP	STATE CAPITOL	N40°46.67' /W111°53.25
VPCHS	_____	N40°42.28' /W112°05.92
VPCOP	BINGHAM COPPER MINE	N40°31.38' /W112°09.00
VPCVI	CENTERVILLE INTERCHANGE	N40°55.30' /W111°53.43
VPCWY	CAUSEWAY	N41°05.37' /W112°07.17
VPCYN	PARLEYS CANYON	N40°42.67' /W111°48.10
VPFPC	FREE PORT CENTER	N41°05.92' /W112°02.27
VPFPK	FRANCIS PEAK	N41°01.98' /W111°50.30
VPGFS	GARFIELD STACK	N40°43.28' /W112°11.88

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPHVE	SPAGHETTI BOWL	N40°43.50' / W111°54.22'
VPJRT	JORDAN RIVER TEMPLE	N40°35.02' / W111°55.58'
VPKSL	KSL ANTENNA	N40°46.80' / W112°05.80'
VLGN	LAGOON AMUSEMENT PARK	N40°59.08' / W111°53.57'
VPMDH	MCKAY DEE HOSPITAL	N41°11.50' / W111°57.08'
VPMMT	MICROWAVE TOWERS	N40°48.50' / W111°53.37'
VPMSH	_____	N41°01.67' / W112°02.47'
VPNSL	_____	N40°50.15' / W111°54.90'
VPNTP	_____	N41°03.57' / W112°14.23'
VPOGE	GRAIN ELEVATOR	N41°13.13' / W112°00.45'
VPOPS	POWER STATION	N41°20.38' / W112°02.78'
VPPEP	STATE PRISON	N40°29.88' / W111°53.62'
VPPTT	PROMONTORY POINT	N41°12.28' / W112°25.73'
VPPTM	POINT OF THE MOUNTAIN	N40°27.42' / W111°54.83'
VPVVO	PROVO CANYON	N40°18.77' / W111°39.45'
VPRWY	_____	N40°48.48' / W112°00.33'
VPSLC	I-15/I-80 INTERCHANGE	N40°45.83' / W111°54.85'
VP TIP	SOUTH TIP	N40°50.93' / W112°10.92'
VP UOU	U OF U EVENTS CENTER	N40°45.73' / W111°50.28'
VPWBR	WEBER CANYON	N41°08.17' / W111°54.83'
VPWBT	_____	N40°38.00' / W112°03.33'
VPZOO	HOGLE ZOO	N40°45.00' / W111°48.95'

SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

VPLDP	DANA POINT	N33°27.62' / W117°42.87'
VPLSP	SIGNAL PEAK	N33°36.33' / W117°48.63'
VPOCN	_____	N33°14.15' / W117°26.63'
VPSBC	BARONA CASINO	N32°56.25' / W116°52.60'
VPSBL	_____	N33°05.18' / W117°18.55'
VPSBM	BLACK MOUNTAIN	N32°58.87' / W117°07.00'
VPSCF	_____	N32°48.55' / W117°09.17'
VPSCM	COWLES MOUNTAIN	N32°48.72' / W117°01.97'
VPSCP	CRYSTAL PIER	N32°47.77' / W117°15.42'
VPSCR	_____	N32°39.37' / W117°07.30'
VPSFB	IRON MOUNTAIN	N32°58.25' / W116°57.33'
VPSLJ	LAKE JENNINGS	N32°51.53' / W116°53.28'
VPSMB	_____	N32°45.57' / W117°12.22'
VPSMP	_____	N33°22.70' / W117°36.75'
VPSMS	MOUNT SOLEDAD	N32°50.40' / W117°15.10'
VPSMV	_____	N32°45.75' / W117°09.80'
VPSMW	MOUNT WOODSON	N33°00.52' / W116°58.23'
VPSOP	OTAY MESA PRISON	N32°35.82' / W116°55.28'
VPSOT	LOWER OTAY LAKE	N32°37.73' / W116°55.38'
VPSPL	SOUTH POINT LOMA	N32°39.90' / W117°14.55'
VPSPP	POWER PLANT	N33°08.25' / W117°20.23'
VPSQS	QUALCOMM STADIUM	N32°46.98' / W117°07.23'
VPSRT	DEL MAR RACE TRACK	N32°58.58' / W117°15.95'
VPSSM	SAN MIGUEL MOUNTAIN	N32°41.78' / W116°56.18'
VPSV	SAN VICENTE ISLAND	N32°55.53' / W116°55.00'
VPSTP	TORREY PINES GOLF COURSE	N32°54.17' / W117°14.68'
VPSVA	_____	N33°11.48' / W117°16.38'

SAN FRANCISCO SECTIONAL CHART

VPKBG	KINGSBURY GRADE	N38°58.75' / W119°53.20'
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SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

VPALT	ALTAMONT PASS	N37°44.35' / W121°35.42'
VPANT	ANTIOCH BRIDGE	N38°01.45' / W121°45.02'
VPBBR	BENICIA BRIDGE	N38°02.50' / W122°07.45'
VP CAL	CALAVERAS RESERVOIR	N37°28.16' / W121°48.93'
VP CBT	LAKE CHABOT	N37°43.68' / W122°06.94'
VP COY	COYOTE HILLS	N37°32.50' / W122°05.06'
VP CQZ	CARQUINEZ BRIDGE	N38°03.66' / W122°13.52'
VP CRL	_____	N37°11.00' / W121°41.06'
VP CRY	CRYSTAL SPRINGS CAUSEWAY	N37°30.56' / W122°21.10'

WAYPOINT IDENT

VPCSH
VPDAM
VPDLR
VPDUB
VPEMB
VPGGF
VPGIL
VPHHH
VPKGO
VPLEX
VPMID
VPMOR
VPNUM
VPPAC
VPPRU
VPSAR
VPSLA
VPSTB
VPSUN
VPUTC
VPWAL
VPWAM
VPWFR

COLLOCATED VFR CHECKPOINT

CAL STATE UNIVERSITY
DEL VALLE DAM

DUBLIN
EMBASSY SUITES
GOLDEN GATE FIELDS
GILROY
HAMILTON
KGO
LEXINGTON RESERVOIR
MID-SPAN SAN MATEO BRIDGE
MORMON TEMPLE
NUMMI PLANT

PRUNEYARD
SARATOGA
SLAC/LINEAR ACCELERATOR
STINSON BEACH
SUNOL GOLF COURSE
U.T.C.
WALNUT CREEK

CEMENT PLANT

LOCATION

N37°39.52'/W122°03.52'
N37°36.91'/W121°44.78'
N37°07.00'/W121°47.06'
N37°42.06'/W121°55.36'
N37°26.05'/W121°53.83'
N37°53.07'/W122°18.71'
N37°01.37'/W121°33.99'
N38°03.58'/W122°30.66'
N37°31.58'/W122°06.10'
N37°11.66'/W121°59.18'
N37°36.28'/W122°11.81'
N37°48.46'/W122°11.95'
N37°29.56'/W121°56.58'
N37°38.00'/W122°32.07'
N37°17.33'/W121°56.01'
N37°15.26'/W122°02.33'
N37°24.75'/W122°14.35'
N37°54.45'/W122°40.41'
N37°34.85'/W121°53.23'
N37°13.93'/W121°41.35'
N37°53.78'/W122°04.30'
N37°30.28'/W122°10.00'
N37°30.88'/W122°12.26'

TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

VPBOV
VPCNY
VPDAD
VPDFI
VPDUT
VPEAR
VPFFU
VPGPE
VPHUC
VPKER
VPLEV
VPLJA

DADE CITY

CLEARWATER BEACH

ST PETE BEACH

LAKE PARKER

N27°57.00'/W080°46.75'
N28°30.00'/W080°45.00'
N28°22.57'/W082°11.25'
N29°00.17'/W081°20.85'
N27°37.70'/W082°09.10'
N27°58.67'/W082°49.83'
N28°57.08'/W081°00.33'
N27°43.50'/W082°44.67'
N28°19.87'/W082°43.77'
N28°04.00'/W081°56.00'
N28°48.00'/W080°52.00'
N29°00.00'/W080°51.00'

WASHINGTON SECTIONAL CHART

VPACE
VPAXI
VPBRA
VPGCE
VPWZO

N38°07.82'/W076°48.75'
N38°34.57'/W076°20.38'
N36°13.75'/W076°08.08'
N36°03.90'/W076°36.42'
N36°00.87'/W075°40.07'

VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual. Basic Flight Information and ATC Procedures.

NOTE: Under columns headed "Type of Checkpoint" & "Type of VOT Facility" G stands for ground. A/ stands for airborne followed by figures (2300 or 1000–3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

ALABAMA VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Brookley (Mobile Downtown)	112.8/BFM	G	313	1.68	On runup area for rwy 14. VOR grand receiver checkpoint OTS indef.
Cairns AAF (Fort Rucker)	111.2/OZR	G	066	1.0	On runup pad Twy F.
Enterprise Muni	116.6/EDN	A/2000	341	7.4	Red/white twr.
Monroeville (Monroe Co Arpt)	116.8/MVC	G	196	0.6	Rwy 03 runup area/turnaround pad.
Montgomery (Montgomery Rgnl/ Dannelly Field)	112.1/MGM	G	318	6.2	On Twy C north of Twy A.
Talladega Muni	108.8/TDG	A/2000	084	9.0	Over center of segmented circle.
Crimson (Tuscaloosa Rgnl)	117.8/LDK	G	238	4.2	On centerline of Twy midway between ramp and rwy.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Birmingham-Shuttlesworth Intl	110.0	G	
Huntsville Intl-Carl T Jones Fld	111.0	G	

FLORIDA VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Cypress (Naples Muni)	108.6/CYY	G	121	0.6	On runup area Rwy 32.
Crestview (Bob Sikes)	115.9/CEW	A/1200	106	8.6	Over rotating bcn.
Lakeland Linder Rgnl	116.0/LAL	G	038	0.5	On NE end of Twy C.
Melbourne Intl	116.0/LAL	G	283	1.1	On Twy A-1.
Melbourne Intl	110.0/MLB	G	184	0.6	SW corner of arpt at intersection of Twy C and D.
Ocala Intl-Jim Taylor Fld	113.7/OCF	G	167	1.0	On taxiway E adjacent to E9.
Orlando (Executive)	112.2/ORL	G	324	.5	On Twy E near AER 13.
		G	311	.5	On Twy H near AER 13.
		G	45	.6	On E ramp near Twy A-3.
Pahokee (Palm Beach Co Glades)	115.4/PHK	A/1500	022	13	Over radio twr at intersection of 2 canals.
Panama City-Bay Co Intl	114.3/PFN	G	190	0.5	Main terminal ramp.

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VOR RECEIVER CHECK

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd.	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
		AB/ALT			
St. Petersburg–Clearwater Intl	116.4/PIE	G	154	0.6	Rwy 32 run-up/Twy G.
		G	208	0.6	Rwy 5 run-up/Twy D.
		G	046	0.4	On circle located NE end of Twy M.
Vero Beach Muni	117.3/VRB	G	111	4.4	Runup area Rwy 29R.
		G	114	4	Compass rose on taxiway E.
		G	116	3.6	Runup area Rwy 11R.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Daytona Beach Intl	111.0	G	Unuseable E of Twy F.
Jacksonville Intl	111.0	G	
Miami Intl	112.0	G	
Palm Beach Intl	109.0	G	
Tallahassee Rgnl	111.0	G	
Tampa Intl	111.0	G	

GEORGIA

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd.	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
		AB/ALT			
Athens (Madison Muni)	109.6/AHN	A/2000	199	21	Over center of rwy.
Athens (Athens/Ben Epps)	109.6/AHN	G	284	0.5	Twy A2.
Atlanta (DeKalb–Peachtree)	116.6/PDK	G	004	0.5	On runup area Rwy 20L.
					VOR ground checkpoint unavailable.
		G	218	0.5	On runup area Rwy 02L and 02R.
Brunswick (Malcolm McKinnon)	109.8/SSI	A/1050	029	7.2	Over rotating bcn.
Columbus Metropolitan	117.1/CSG	G	146	7.1	FBO ramp in front of ASOS equipment.
Dublin (W H ‘Bud’ Barron)	113.1/DBN	G	270	7.6	Ramp.
Foothills (Toccoa RG Letourneau Fld)	113.4/ODF	A/2000	179	6	Over rotating bcn.
Hunter	111.6/SVN	A/1500	090	15.5	Over lighthouse.
Hunter AAF	111.6/SVN	G	271	1.2	On Twy 6.
Lawson AAF	111.4/LSF	G	356	.6	On painted circle at taxiway intersection
					580’ NW of twr.
Macon	114.2/MCN	A/2000	028	13.6	Over oil tank.
		A/2000	320	9.5	Over dam.
Pecan (Southwest Georgia Rgnl)	116.1/PZD	A/1000	145	9	Over rotating bcn E side of arpt.
Rome (Richard B Russel)	115.4/RMG	G	348	11.5	At intersection of twy 200’ S of terminal building.
					VOR ground checkpoint unavailable.
Savannah	112.7/SAV	A/1500	097	19.6	Over red and white lighthouse.
Valdosta Rgnl	114.8/OTK	G	131	0.6	On taxiway at apch end rwy 35.
Vienna (Crisp County–Cordele)	116.5/VNA	A/1300	226	19	Over center of NE/SW rwy.
Waycross–Ware Co.	110.2/AYS	A/1200	099	8	Over fire twr W side arpt.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Atlanta (Hartsfield–Jackson Atlanta Intl) ..	111.0	G	VOT OTS indef.
(Atlanta Muni).....	111.0	G	
Brunswick Golden Isles	111.0	G	
Savannah/Hilton Head Intl	111.0	G	

KENTUCKY

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Central City (Muhlenberg Co)	109.8/CCT	A/2500	153	10.6	Over intersection of Rwy 23 and central taxiway.
Clarksville (Campbell AAF)	110.6/CKV	G	307	4.9	On taxiway 6 center romeo helipad.
Clarksville (Hopkinsville–Christian Co).....	110.6/CKV	A/2000	345	13.5	Over hangar.
Fort Knox (Godman AAF).....	109.6/FTK	A/2000	270	9.2	W of Godman AAF over a 298 ft twr.
Frankfort (Capital City)	109.4/FFT	G	082	.7	Runup pad Rwy 24.
London (London–Corbin Arpt–Magee Fld)	116.1/LOZ	G	033	3.8	On parking ramp taxiway entry.
Owensboro–Daviess Co.	108.6/OWB	G	176	.7	On taxiway at apch end Rwy 36.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Louisville Intl–Standiford Fld	111.0	G	

Type

VOR TEST FACILITIES (VOT)

SOUTH CAROLINA

VOR RECEIVER CHECKPOINTS

VOR TEST FACILITIES (VOT)

SE. 23 SEP 2010 to 18 NOV 2010

TENNESSEE

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Hinch Mountain (Crossville Memorial–Whitson Fld)	117.6/HCH 117.6/HCH	A/2900 G	336 335	11 11.5	Over metal hangar. Runup area between taxiway and rwy at center of fld.
Holston Mountain (Tri–Cities Rgnl TN/VA) ...	114.6/HMV	G	286	13.7	On ramp S of terminal building.
Jackson (McKellar–Sipes Rgnl)	112.0/MKL		256	0.6	At south end of ramp at fire station.
Nashville (Lebanon Muni)	114.1/BNA	A/2000	082	18	Over midfield.
Tulahoma Rgnl/Wm Northern Fld		A/1800	003	5.0	Over Normandy Dam.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Knoxville (McGhee–Tyson)	112.0	G	
Memphis Intl	111.0	G	
Nashville Intl	108.6	G	
Smyrna	110.2	G	

PUERTO RICO

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Borinquen (Rafael Hernandez)	113.5/BQN	G	271	2.2	On apch end of Rwy 08.

VIRGIN ISLANDS

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Saint Thomas (Cyril E. King)	108.6/STT	G	118	3.5	On taxiway North of Main ramp. VOR gnd checkpoint unusable.

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The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations, Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

- (1) Be in operation for at least 1 year.
- (2) Operate year round (at least on weekends).
- (3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
ALABAMA			
Allen Army Heliport	11 NM; 253° Wiregrass	12,500	1 NM radius. SR-SS weekends and holidays.
(c) Bayou La Batre, Roy E. Ray Arpt.	12 NM; 217° Brookley	12,500	Daily SR-SS
Bessemer, Old Bessemer Arpt	16 NM; 057° Brookwood	10,000	1030-SS weekends
(c) Cullman, Folsom Fld Arpt.	36 NM; 001° Vulcan	14,500	3 NM radius. SR-SS Sat-Sun, other times by NOTAM.
(c) Dothan, Hatch Army Heliport	10.3 NM; 290° Wiregrass	12,500 AGL	1 NM SR-SS weekends and holidays.
(c) Elberta, Horak Arpt.	11 NM; 268° Sauflay	14,000	Daily 0700-1/2 hour after SS.
Ellis Drop Zone	15 NM; 220° Decatur	1,500	0.4 NM radius. Occasional use
Eutaw Muni Arpt.	30 NM; 200° Crimmon	13,000 AGL	Weekends and holidays
Gadsden, Northeast Alabama Rgnl Arpt. .	3 NM; 230° Gadsden	14,000	Weekends and holidays 0900-SS.
Harvest, Epps Arpk.	9 NM; 297° Rocket	13,500	Daily SR-SS
(c) Hazel Green	7 NM; 355° Rocket	14,000	7 NM radius. Daily SR-SS. Occasional night use.
Headland Muni Arpt	8 NM; 070° Wiregrass	15,000	Weekdays 1200-SS; Sat-Sun, and holidays SR-SS
Jones Drop Zone	6 NM; 276° Rocket	1,500	0.25 NM radius. Occasional use
Kilby Drop Zone	13 NM; 014° Montgomery	1,500	0.2 NM radius. Occasional use
Moundville Arpt.	18 NM; 198° Tuscaloosa	12,000 AGL	5 NM radius. 0900-SS on weekends, occasionally weekdays by Notam.
Pinson, Industrial Park	12 NM; 085° Vulcan	10,500	0800-SS Sat-Sun, occasionally weekday and ngt use.
Prattville-Grouby Fld Arpt	17 NM; 300° Montgomery	2,000	10NM radius. For specific times call 334-953-7325.
Redstone Drop Zone	9 NM; 220° Rocket	1,500	0.2 NM radius. Occasional use
Renda Drop Zone	8 NM; 234° Talladega	1,500	0.25 NM radius. Occasional use
Tac Runkle Drop Zone	19 NM; 280° Cairns	3,500 AGL	Occasional use
Tommy Drop Zone	17 NM; 235° Montgomery	1,500	0.2 NM radius. Occasional use
(c) Tuskegee, Moton Fld Muni	2 NM; 198° Tuskegee	12,500	3 NM radius. Occasionally on weekends.
Vincent	37 NM; 130° Vulcan	10,000	5 NM radius. Weekends 0900-SS.
Warrior	11 NM; 350° Vulcan	12,500	Daily SR-SS
Weaver, McMinn Arpt	15 NM; 047° Talladega	12,500	1 NM radius. Daily SR-SS, occasional night use.
(c) Wetumpka Muni	18 NM; 356° Montgomery	10,000	Daily SR-SS
FLORIDA			
Arcadia Muni.	23 NM; 311° Labelle	15,000	5 NM radius. SR-SS daily, occasional ngt use.
Avon Park Executive Arpt	30 NM; 138° Lakeland	4,000	4 NM radius. Daily SR-SS
Brandon, Sod Farm	16 NM; 255° Lakeland	15,000	0830-1830 weekends
Chassahowitzka Drop Zone	38 NM; 010° St. Petersburg	4,000	0.25 NM radius. Occasional use

PARACHUTE JUMPING AREAS

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LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
(c) Clewiston, Airglades Arpt.....	19 NM; 097° LaBelle.....	13,500	1 NM radius. Daily SR-SS
(c) Coleman, Freeflight Arpt.....	24 NM; 155° Ocala.....	15,000	3 NM radius. Daily SR-SS.
(c) Deland Muni-Sidney H Taylor Fld....	17 NM; 210° Ormond Beach.....	15,000	1 NM radius. SR-SS Sat, Sun, occasionally weekdays.
Englewood, Buchan Arpt.....	27 NM; 158° Sarasota.....	15,000 AGL	2 NM radius. Sunday 1000-SS
Florabama Drop Zone.....	16 NM; 216° Saufley.....	14,000	2 NM radius. Fri-Sun 0830-SS.
(c) Homestead General Aviation.....	22 NM; 218° Dolphin.....	15,000	5 NM radius. 24 hrs daily.
Jacksonville, Herlong Arpt.....	15 NM; 255° Craig.....	15,000	1 NM radius. Daily SR-SS with prior notification to JAX APP CON.
Key West.....	1 NM; 095° Key West.....	7,000	0.2 NM radius. Occasional use.
(c) La Belle, Sundance Farms Arpt.....	5.4 NM; 245° La Belle.....	12,500	1 NM radius. Daily SR-SS.
(c) Lake Wales Muni.....	21 NM; 104° Lakeland.....	18,000	7 NM radius, 24 hrs daily. Miami Center 127.2
(c) MacDill AFB.....	11 NM; 110° St. Petersburg.....	10,000	0600-1100 Sun. Over Rwy 31
(c) Myakka City.....	18 NM; 097° Sarasota.....	12,500	5 NM radius, 24 hrs daily
(c) New Smyrna Beach, Massey Ranch Airpark.....	22 NM; 150° Ormond Beach.....	15,000	1 NM radius SR-SS weekends, occasionally weekdays.
(c) Palatka Muni-Lt. Kay Larkin Fld.....	36 NM; 079° Gators.....	12,500	3 NM radius. Daily, SR-SS
(c) Pahokee, Palm Beach Co Glades Arpt.....	at Pahokee.....	17,500	3 NM radius, 0800-1800 daily.
(c) Quincy Muni Arpt.....	10 NM; 288° Seminole.....	15,000	Daily SR-SS
St. Augustine.....	35 NM; 159° Craig.....	12,500	Sat-Sun occasionally weekdays
(c) Sebastian Muni.....	8 NM; 001° Vero Beach.....	14,000	2 NM radius. Daily SR-SS.
(c) Shell Creek Airpark.....	27.5 NM; 347° Lee County.....	13,000	1 NM radius. SR-SS weekends, holidays.
(c) Skydive Live Arpt.....	24 NM; 075° Crestview.....	13,000	3 NM radius. SR-SS Sat-Sun, holidays and other times by NOTAM.
(c) Sugar Loaf Shores Arpt.....	13 NM; 071° Key West.....	14,000	2 NM radius. SR-SS.
Sun City.....	22 NM; 123° St. Petersburg.....	12,500	
(c) Titusville, Arthur Dunn Air Park.....	33 NM; 341° Melbourne.....	13,500	1 NM radius, SR-SS daily.
(c) Umatilla Muni Arpt.....	29 NM; 327° Orlando.....	13,000 AGL	2 NM radius. SR-SS. Occasional night use.
Wakulla Co Arpt.....	35 NM; 180° Seminole.....	13,500	3 NM radius. SR-SS weekends occasionally weekdays.
(C) Williston Muni Arpt.....	22 NM; 210° Gators.....	11,000	Tallahassee Rgnl Tower 135.8
(c) Zephyrhills Muni.....	16 NM; 330° Lakeland.....	20,000	2.5 NM radius. SR-SS Fri, Sat and Sun. Jacksonville Center 118.6
GEORGIA			
Bunker Hill Drop Zone.....	10 NM; 233° Harris.....	8,000	1 NM radius. SR-1 hr after SS daily, irregular intervals. Mass military jumps from multiple acft.
(c) Cedartown, Polk Co Arpt-Cornelius Moore Fld.....	9 NM; 188° Rome.....	15,000	3 NM radius. SR-SS daily, occasionally nights.
Claxton-Evans Co Arpt.....	33.6 NM; 276° Savannah.....	7,500	0900-SS Sat and Sun
(c) Dahlonega, Lumpkin County Arpt, Wimpy Drop Zone.....	23 NM; 193° Harris.....	15,000	1 NM radius. SR to 1 hr after SS daily irregular intervals. Mass military jumps from multiple acft.
Dahlonega Highway 76 Drop Zone.....	11 NM; 231° Harris.....	3,000	Occasional use.
Fort Benning, Box Spring Drop Zone.....	24.5 NM; 116° Columbus.....	3,000	Occasional use.
Fort Benning, Eelbeck Drop Zone.....	17.5 NM; 131° Columbus.....	3,000	Occasional use.
(c) Fort Benning, EuBanks Drop Zone....	16 NM; 171° Columbus.....	12,500	Daily 0500-1900
(c) Fort Benning, Fryar Field Drop Zone.....	22.5 NM; 168° Columbus.....	13,000	0.5 NM radius, Continuous.
(c) Fort Benning, Gardner Drop Zone.....	17 NM; 171° Columbus.....	12,500	Daily 0500-1900
Fort Benning, Lawson AAF (Fort Benning).....	1.8 NM; 046° Lawson.....	12,500	1 NM radius. Daily SR-SS
Fort Benning, Lae Drop Zone.....	21 NM; 166° Columbus.....	3,000	Occasional use
Fort Benning, Ledo Drop Zone.....	14 NM; 090° Lawson.....	3,000	Occasional use
Fort Benning, McKenna Drop Zone.....	10 NM; 080° Columbus.....	3,000	Occasional use
(c) Fort Benning, York Drop Zone.....	16 NM; 172° Columbus.....	12,500	Daily 0500-1900
Fort Valley, Miami Valley Farms Arpt....	12 NM; 220° Macon.....	14,000	1 NM radius, Daily 0900-SS
Locust Grove, Mallards Landing Arpt.....	17.5 NM; 118° Atlanta.....	13,500	Sat, Sun and holidays SR-SS. Occasional ngt jumps
(c) Monroe-Walton Co Arpt.....	22 NM; 242° Athens.....	13,500	5 NM radius. Daily 0800-2100.
Plantation Airpark, Moore Drop Zone....	36 NM; 332° Savannah.....	1,500 AGL	1 NM radius. Occasional use. Mass Military jumps from multiple acft.
(c) Rome, Richard B. Russell Arpt.....	11.3 NM; 349° Rome.....	15,000	5 NM radius. SR-SS Weekends.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
St Marys Arpt.....	19 NM; 203° Brunswick.....	12,000	2 NM radius. Daily 0700–1859.
Thomaston–Upson Co.....	35 NM; 296° Macon.....	14,500	1 NM radius. Sat–Sun occasionally weekdays.
Tifton, Henry Tift Myers, Arpt.....	1 NM; 090° Tift Myers.....	15,000	5 NM radius. Daily 0700–1800.
Waycross–Ware Co Arpt.....	8 NM; 100° Waycross.....	12,500	1 NM radius. Daily 1000–1600
Wilscott Drop Zone.....	14 NM; 245° Harris.....	8,000	1 NM radius. SR to 1 hr after SS daily, irregular intervals. Mass military jumps from multiple acft.

KENTUCKY

Elizabethtown, Addington Fld.....	12 NM; 285° New Hope.....	11,000	3 NM radius, SR–SS Weekends and noon–SS weekdays.
Elkton, Standard Fld.....	16 NM; 045° Clarksville.....	12,000	5 NM radius. Continuous.
(c) Flemingsburg, Fleming Mason Arpt.....	27 NM; 103° Falmouth.....	12,500	1 NM radius. SR–SS Sat–Sun and holidays.
Ft. Campbell, Bastogne Drop Zone.....	8 NM; 274° Clarksville.....	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Ft. Campbell, Corregidor Drop Zone.....	11 NM; 270° Clarksville.....	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Ft. Campbell, Los Banos Drop Zone.....	10 NM; 270° Clarksville.....	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Ft. Campbell, Suckchon Drop Zone.....	10 NM; 270° Clarksville.....	3,000	0600–2330 Mon–Fri and occasional weekends. Military use.
Glasgow Muni Arpt.....	24 NM; 073° Bowling Green.....	8,000	5 mi radius. SR–SS weekends and holidays
(c) Greenville, Muhlenberg Co Arpt.....	10 NM; 149° Central City.....	13,500	5 mi. radius. Daily SR–SS.
	7 NM; 149° Central City.....	2,000	2 NM radius. Intermittent. Military use.
(c) Hopkinsville–Christian Co.....	14 NM; 352° Clarksville.....	14,500	3 NM radius, 0900–1600 Tue–Fri; occasional weekends.
Owensboro, Windy Hollow Drag Strip.....	6 NM; 205° Owensboro.....	8,000	2 NM radius. 0800–SS Sun, holidays occasionally other times

NORTH CAROLINA

Erwin Arpt.....	22 NM; 030° Fayetteville.....	4,500	1 NM radius. Sat & Sun afternoons
(c) Fayetteville, Southern Comforts Arpt.....	9 NM; 220 Fayetteville.....	14,000	3 NM radius. Fri–Mon and holidays SR–SS.
Greensboro, Southeast Greensboro Arpt.....	18 NM; 115° Greensboro.....	12,000	1 NM radius. 0800–2000 Sat and Sun.
	8 NM; 339° Liberty.....	11,000	3 NM radius. 0800–1600 Fri–Sun.
Greenville.....	22 NM; 040° Kinston.....	15,500	Daily SR–SS.
(c) Jonesville, Swan Creek Arpt.....	27 NM; Barretts Mountain.....	15,000	3 NM radius. SR–SS daily, occasional night.
(c) Louisburg, North Raleigh.....	22 NM; 060° Raleigh–Durham.....	15,500	30 min before SR–30 min after SS daily. Occasional ngt.
(c) Luzon Drop Zone.....	13 NM; 152° Sandhills.....	17,500	0600–1900 Daily.
Mackall AAF.....	11 NM; 150° Sandhills.....	17,500	Continuous.
(c) Maxton, Laurinburg–Maxton Arpt.....	26 NM; 250° Fayetteville.....	13,500	0800–1700 Mon–Fri.
Mebane, Kimrey Arpt.....	29 NM; 296° Raleigh/Durham.....	12,000	1 NM radius. 0900–SS Weekends; occasionally other times.
Pinebluff.....	8.75 NM; 143° Sandhills.....	12,500	Sat, Sun and holidays. Weekdays on request.
(c) PK Airpark.....	17 NM; 280° Fayetteville.....	12,500 AGL	Continuous.
(c) Rocky Mount.....	9.5 NM; 285° Tar River.....	12,500	Sat, Sun and holidays 0900–SS.
Southport, Brunswick Co.....	27.2 NM; 209° Wilmington.....	12,000	3 NM radius. 0800–2100 daily.
Thomasville, Fairgrove Arpt.....	13 NM; 201° Greensboro.....	14,000	Weekends and holidays.
(c) Wallace, Henderson Fld.....	23 NM; 351° Wilmington.....	15,000 AGL	3 NM radius. Sat–Sun SR–SS.
Washington, Warren Fld.....	27.6 NM; 069° Kinston.....	14,999 AGL	2 NM radius. SR–SS daily, occasional night use.

SOUTH CAROLINA

Beaufort County Arpt.....	38.25 NM; 067° Savannah.....	10,000	1.0 NM radius. Sat, Sun and holidays SR–SS.
(c) Chester Catawa Rgnl Arpt.....	16.5 NM; 223° Fort Mill.....	13,500 AGL	1 NM radius. Daily 0800–SS.
Clemson– Oconee Co. Arpt.....	14 NM; 343° Electric City.....	12,000	Daily SR–SS.
Columbia, Fort Jackson.....	10 NM; 020° Columbia.....	10,000	1 NM radius. Weekends, occasional weekdays.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
(c) Green Sea Arpt.....	25 NM; 330° Grand Strand.....	15,000	3 NM radius. Weekends and occasional weekdays SR-SS.
(c) Loris, Twin City Arpt.....	15 NM; 340° Grand Strand.....	12,000	Weekends, holidays 0800-SS.
(c) North AF Aux Arpt	15 NM; 186° Columbia	2,000	½ NM radius. Mon-Fri 0800-2200. Military personnel and heavy equipment.
St George Arpt.....	17 NM; 192° Vance.....	17,900	SR-1 hr after SS.
Timmonsville, Huggins Arpt	14 NM; 247° Florence	12,500	Daily SR-SS.
(c) Walterboro, Lowcountry Rgnl Arpt ...	30.5 NM; 275° Charleston	12,500 AGL	Weekends.
TENNESSEE			
Campbell Co.	28.9 NM; 336° Volunteer	13,500	2 NM radius. 0800-one hr byd SS.
Chattanooga	13 NM; 087° Choo Choo	10,000	Continuous.
Clarksville, Outlaw Fld.....	Over Clarksville.....	14,000 AGL	4 NM radius. Daily SR-SS, occasional nghts.
Crossville Meml-Whitson Fld.....	11.5 NM; 335° Hitch Mountain..	14,500	1 NM radius. Daily SR-1 hr after SS, occasional nights.
(c) Dunlap	30 NM; 335° Choo Choo	9,000	5 NM radius. SR-SS Daily.
Fort Campbell, Son Drop Zone.....	4.1 NM; 302° Clarksville.....	12,500	Daily.
Livingston Arpt	13 NM; 212° Livingston	12,500	Weekends.
(c) Paris, Henry Co.	44.3 NM; 357° Jacks Creek	13,500	5 NM radius. Daily SR-SS.
Sevierville, Seymour Airpark.....	10 NM; 133° Volunteer.....	13,500	3 NM radius. Weekends SR-SS.
(c) Somerville, Wings	26 NM; 210° McKellar.....	14,000 AGL	2 NM radius. Weekends 0700-SS. Occasional ngt jumps.
Tullahoma Rgnl Arpt/WM Northern Fld ...	14.1 NM; 139° Shelbyville	15,000	5 NM radius. SR-SS primarily weekends with occasional nights.
Whifferdill.....	25 NM; 303° Nashville	11,500	2 NM radius. Weekends SR-SS.
PUERTO RICO			
(c) Arecibo, Antonio/Nery/Juarbe Pol Arpt	25 NM; 105° Borinquen	12,500	0600-1800 weekends & holidays.
(c) Humacao Arpt	20.9 NM; 159° San Juan	15,000	2.5 NM radius. Weekends SR-SS, occasionally holiday SR-SS.
VIRGIN ISLANDS			
St. Croix, Ordinance Drop Zone.....		2,000	0700-1400 Mon-Fri. 5 NM radius from 17°49'N 064°52'W.
St. Thomas, Cyril E. King No. 1	6.5 NM; 118° St. Thomas	15,000	
St. Thomas, Cyril E. King No. 2	10.4 NM; 110° St. Thomas	15,000	

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The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

ATLANTA SECTIONAL

85th Edition, 26 Aug 2010

OBSTRUCTIONS

23 Sep 2010 Add obst 841'MSL (260'AGL)UC, 32°40'34"N, 85°55'14"W.
Add obst 429'MSL (255'AGL), 32°16'09"N, 87°41'39"W.

AIRPORTS

23 Sep 2010 No Major Changes.

NAVAIDS

23 Sep 2010 No Major Changes.

AIRSPACE

23 Sep 2010 Revise CLEMSON, SC Class E: That airspace extending upward from 700 feet above the surface within a 7-mile radius of Clemson-Oconee County Airport.

Revise PICKENS, SC Class E: That airspace extending upward from 700 feet above the surface within a 6.5-mile radius of the Pickens County Airport and within 3.6 miles each side of the 044° bearing from the airport, extending from the 6.5-mile radius to 11 miles northeast of the airport.

SPECIAL USE AIRSPACE

23 Sep 2010 No Major Changes.

MILITARY TRAINING ROUTES

23 Sep 2010 No Major Changes.

MISCELLANEOUS

23 Sep 2010 No Major Changes.

ATLANTA TERMINAL AREA CHART

82nd Edition, 26 Aug 2010

OBSTRUCTIONS

23 Sep 2010 No Major Changes.

AIRPORTS

23 Sep 2010 No Major Changes.

NAVAIDS

23 Sep 2010 No Major Changes.

AIRSPACE

23 Sep 2010 No Major Changes.

SPECIAL USE AIRSPACE

23 Sep 2010 No Major Changes.

MILITARY TRAINING ROUTES

23 Sep 2010 No Major Changes.

MISCELLANEOUS

23 Sep 2010 No Major Changes.

CHARLOTTE SECTIONAL

88th Edition, 29 Jul 2010

OBSTRUCTIONS**29 Jul 2010** No Major Changes.**23 Sep 2010** Add obst 2013' MSL (300' AGL) UC, 35°54'29"N, 81°16'14"W.

Add obst 334' MSL (310' AGL) UC, 33°30'50"N, 79°22'40"W.

Add obst 399' MSL (285' AGL) UC, 33°49'32"N, 80°44'48"W.

Add obst 647' MSL (400' AGL), 36°12'41"N, 78°04'09"W.

Add obst 433' MSL (310' AGL), 33°45'34"N, 80°17'09"W.

Add obst 377' MSL (310' AGL), 33°40'23"N, 79°43'57"W.

Add obst 434' MSL (310' AGL), 33°50'08"N, 80°11'20"W.

Add obst 226' MSL (220' AGL), 36°13'42"N, 76°08'05"W.

AIRPORTS**29 Jul 2010 – 23 Sep 2010** No Major Changes.**NAVAIDS****29 Jul 2010** No Major Changes.**23 Sep 2010** Delete ORANGEBURG NDB, 33°25'05"N, 80°54'21"W.**AIRSPACE****29 Jul 2010** No Major Changes.**23 Sep 2010** Revise SMITHFIELD, NC Class E: That airspace extending upward from 700 feet above the surface within a 6.5 mile radius of the Johnston County Airport and within 2 miles each side of the 023° bearing from the airport extending from the 6.5 mile radius to 10.2 miles northeast of the Johnston County Airport.**SPECIAL USE AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****29 Jul 2010 – 23 Sep 2010** No Major Changes.

CHARLOTTE TERMINAL AREA CHART

43rd Edition, 29 Jul 2010

OBSTRUCTIONS**29 Jul 2010 – 23 Sep 2010** No Major Changes.**AIRPORTS****29 Jul 2010 – 23 Sep 2010** No Major Changes.**NAVAIDS****29 Jul 2010 – 23 Sep 2010** No Major Changes.**AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****29 Jul 2010 – 23 Sep 2010** No Major Changes.

CINCINNATI SECTIONAL
84th Edition, 1 Jul 2010**OBSTRUCTIONS****29 Jul 2010** Add obst 2206' MSL (310' AGL), 37°16'09"N, 82°55'58"W.

Add obst 2556' MSL (304' AGL) UC, 38°57'53"N, 80°01'49"W.

Add obst 1190' MSL (317' AGL) UC, 39°06'36"N, 82°41'29"W.

Change obst from 2110' MSL (260' AGL) to 2210' MSL (260' AGL), 36°23'13"N, 84°20'11"W.

23 Sep 2010 Add obst 1088' MSL (299' AGL), 38°48'58"N, 84°46'53"W.

Add obst 1804' MSL (355' AGL), 37°27'37"N, 79°59'39"W.

Add obst 1393' MSL (285' AGL), 36°35'10"N, 80°08'07"W.

Add obst 927' MSL (257' AGL) UC, 36°24'41"N, 79°02'46"W.

Add obst 636' MSL (310' AGL), 36°24'11"N, 77°55'45"W.

Add obst 2052' MSL (315' AGL), 36°49'13"N, 83°19'44"W.

Add obst 647' MSL (400' AGL), 36°12'41"N, 78°04'09"W.

Add obst 1158' MSL (308' AGL) UC, 38°33'10"N, 82°23'38"W.

Add obst 1342' MSL (355' AGL) UC, 39°20'19"N, 78°45'27"W.

Add obst 1509' MSL (255' AGL) UC, 39°42'41"N, 80°07'17"W.

AIRPORTS**29 Jul 2010** No Major Changes.**23 Sep 2010** Delete abandoned arpt symbol, 39°09'00"N, 80°12'00"W.

Delete abandoned arpt symbol, 37°06'00"N, 81°50'00"W.

Delete Kite arpt, 36°31'00"N, 82°44'00"W. Change RP 31 to RP * at GRANT CO arpt, 38°59'00"N, 79°08'00"W.

Delete RP 18 at GREATER PORTSMOUTH RGNL arpt, 38°50'25"N, 82°50'50"W.

NAVAIDS**29 Jul 2010** No Major Changes.**23 Sep 2010** Shutdown AZALEA PARK NDB, 38°00'36"N, 78°31'05"W.

Delete COGAN NDB, 39°05'11"N, 78°04'06"W.

AIRSPACE**29 Jul 2010** No Major Changes.**23 Sep 2010** Revise Mount Airy, NC Class E: That airspace extending upward from 700 feet above the surface within a 9-mile radius of the Mount Airy-Surry County Airport and within 3.9 miles each side of the 353° bearing from the airport extending from the 9-mile radius to 15.3 miles north of the Mount Airy-Surry County Airport.**SPECIAL USE AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****29 Jul 2010 – 23 Sep 2010** No Major Changes.

CINCINNATI TERMINAL AREA CHART
23rd Edition, 1 Jul 2010**OBSTRUCTIONS****29 Jul 2010** No Major Changes.**23 Sep 2010** Add obst 1088' MSL (299' AGL), 38°48'58"N, 84°46'53"W.**AIRPORTS****29 Jul 2010 – 23 Sep 2010** No Major Changes.**NAVAIDS****29 Jul 2010 – 23 Sep 2010** No Major Changes.**AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****29 Jul 2010 – 23 Sep 2010** No Major Changes.

IFR GULF OF MEXICO CENTRAL**1st Edition, 17 Dec 2009****OBSTRUCTIONS****17 Dec 2009 – 23 Sep 2010** No Major Changes.**AIRPORTS****17 Dec 2009 – 23 Sep 2010** No Major Changes.**NAVAIDS****17 Dec 2009 – 23 Sep 2010** No Major Changes.**AIRSPACE****17 Dec 2009 – 23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****17 Dec 2009 – 3 Jun 2010** No Major Changes.**29 Jul 2010** Delete W-453.

Add W-148A Beginning at N29 36' 11"- W088 01' 30" to N28 51' 21"- W088 01' 30" to N29 00' 57"- W88 36' 10" to N29 08' 46" - W088 45' 36" THEN 12NM FROM AND PARALLEL TO THE SHORELINE to N29 24' 25.0' - W088 54' 05.0' THEN 12NM FROM AND PARALLEL TO THE CHANDELEUR ISLANDS to N29 41' 20"-W088 38' 33" TO THE POINT OF BEGINNING. Altitude: Surface to but not including 6000MSL; Time of Use: INTERMITTENT, DAYS, Other Times by NOTAM; Weather: VFR-IFR, Controlling Agency: ZHU CNTR/FSS.

Add W-148B Beginning at N29 36' 11"- W088 01' 30" to N28 51' 21"- W088 01' 30" to N29 00' 57"- W88 36' 10" to N29 08' 46" - W088 45' 36" THEN 12NM FROM AND PARALLEL TO THE SHORELINE to N29 24' 25.0' - W088 54' 05.0' THEN 12NM FROM AND PARALLEL TO THE CHANDELEUR ISLANDS to N29 41' 20"-W088 38' 33" TO THE POINT OF BEGINNING. Altitude: 6000MSL to FL600; Time of Use: INTERMITTENT, DAYS, Other Times by NOTAM; Weather: VFR-IFR; Controlling Agency: ZHU CNTR/FSS.

Add W453A Beginning at N30 09' 16" - W88 01' 30" to N29 36' 11"-W088 01' 30.0" to N29 42' 51" - W088 49' 30' W Then 3 NM FROM AND PARALLEL TO THE CHANDELEUR ISLANDS to N30 06' 01" - W088 51' 00" to N30 11' 01.0' W088 41' 40.0' THEN 3 NM FROM AND PARALLEL TO THE SHORELINE TO THE POINT OF BEGINNING. Altitude: Surface to but not including 6000 MSL; Time of Use: Intermittent, DAYS, Other Times by NOTAM; Weather: VFR-IFR; Controlling Agency: ZMA CNTR/FSS.

Add W-453B Beginning at N30 09' 16" - W88 01' 30" to N29 36' 11"-W088 01' 30.0" to N29 42' 51" - W088 49' 30' W Then 3 NM FROM AND PARALLEL TO THE CHANDELEUR ISLANDS to N30 06' 01" - W088 51' 00" to N30 06' 01" to N30 11' 01.0' W088 41' 40.0' THEN 3 NM FROM AND PARALLEL TO THE SHORELINE TO THE POINT OF BEGINNING. Altitude: 6000 MSL to FL600; Time of Use: Intermittent, DAYS, Other Times by NOTAM; Weather: VFR-IFR, Controlling Agency: ZMA CNTR/FSS.

Add Snake MOA Beginning at N29 42' 51.0"-W088 49' 30" to N29 41' 20.0 - W088 38' 33" THEN 12NM FROM AND PARALLEL TO THE SHORELINE to N29 24' 25"-W088 54' 05.0" THEN 12NM FROM AND PARALLEL TO THE SHORELINE to N 29 08' 46" - W088 45' 36".0 to N29 34' 32" - W089 21' 26" to N29 50' 00" W089 15' 00" to N29 56' 15" - W089 09' 00" to N30 06' 00" - W088 51' 00" then 3NM OFFSHORE OF THE CHANDELEUR ISLANDS TO THE POINT OF BEGINNING. Altitude: 6000 MSL to but not including FL180, Time of Use: INTERMITTENT, DAYS, Other Times by NOTAM, Controlling Agency: ZHU CNTR/FSS.

Add Snake Low MOA Beginning at N29 42' 51.0"-W088 49' 30" to N29 41' 20.0 - W088 38' 33" THEN 12NM FROM AND PARALLEL TO THE SHORELINE to N29 24' 25"-W088 54' 05.0" THEN 12NM FROM AND PARALLEL TO THE SHORELINE to N 29 08' 46" - W088 45' 36.0 to N29 34' 32" - W089 21' 26" to N29 50' 00" W089 15' 00" to N29 56' 15" - W089 09' 00" to N30 06' 00" - W088 51' 00" then 3NM OFFSHORE OF THE CHANDELEUR ISLANDS TO THE POINT OF BEGINNING. Altitude: 3000MSL to but not including 6000MSL Time of Use: INTERMITTENT, DAYS, Other Times by NOTAM, Controlling Agency: ZHU CNTR/FSS.

23 Sep 2010 No Major Changes.**MILITARY TRAINING ROUTES****17 Dec 2009 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****17 Dec 2009** No Major Changes.**11 Feb 2010** Delete BUEKR Waypoint N 29°45' W 91°50'.**8 Apr 2010 – 3 Jun 2010** No Major Changes.**29 Jul 2010** 29 JUL 2010 Delete HOUSTON VERMILLION 120.35 RCAG Site N28 34' 00"- W92 27' 00".**23 Sep 2010** No Major Changes.

IFR GULF OF MEXICO WEST**1st Edition, 17 Dec 2009****OBSTRUCTIONS****17 Dec 2009 – 23 Sep 2010** No Major Changes.**AIRPORTS****17 Dec 2009 – 3 Jun 2010** No Major Changes.**29 Jul 2010** Change Brenham Muni (11R) to N30 13'10.8" - W096 22'27.85".**23 Sep 2010** No Major Changes.**NAVAIDS****17 Dec 2009 – 11 Feb 2010** No Major Changes.**8 Apr 2010** Delete BRENHAM (BNH) NDB 30°13'20.6"N, 96°22'24.6"W.**3 Jun 2010 – 23 Sep 2010** No Major Changes.**AIRSPACE****17 Dec 2009 – 23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****17 Dec 2009 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****17 Dec 2009 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****17 Dec 2009 – 11 Feb 2010** No Major Changes.**8 Apr 2010** Change Name SITA to SARITA at HOUSTON RCAG 27°13'16"N, 97°47'56"W.**3 Jun 2010** No Major Changes.**29 Jul 2010** Delete HOUSTON VERMILLION 120.35 RCAG Site N28 34'00" - W92 27'00".**23 Sep 2010** Add South Padre Island AWOS-3 118.375 N26 04'15.96" - W097 27'84".**JACKSONVILLE SECTIONAL****86th Edition, 26 Aug 2010****OBSTRUCTIONS****23 Sep 2010** No Major Changes.**AIRPORTS****23 Sep 2010** No Major Changes.**NAVAIDS****23 Sep 2010** Delete FOLEY NDB, 29°59'46"N, 83°35'11"W.**AIRSPACE****23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****23 Sep 2010** VR 1003 Revised, VR 1066 Revised**MISCELLANEOUS****23 Sep 2010** No Major Changes.

MEMPHIS SECTIONAL
85th Edition, 23 Sep 2010

OBSTRUCTIONS

23 Sep 2010 No Major Changes.

AIRPORTS

23 Sep 2010 No Major Changes.

NAVAIDS

23 Sep 2010 No Major Changes.

AIRSPACE

23 Sep 2010 No Major Changes.

SPECIAL USE AIRSPACE

23 Sep 2010 No Major Changes.

MILITARY TRAINING ROUTES

23 Sep 2010 No Major Changes.

MISCELLANEOUS

23 Sep 2010 No Major Changes.

MEMPHIS TERMINAL AREA CHART
43rd Edition, 23 Sep 2010

OBSTRUCTIONS

23 Sep 2010 No Major Changes.

AIRPORTS

23 Sep 2010 No Major Changes.

NAVAIDS

23 Sep 2010 No Major Changes.

AIRSPACE

23 Sep 2010 No Major Changes.

SPECIAL USE AIRSPACE

23 Sep 2010 No Major Changes.

MILITARY TRAINING ROUTES

23 Sep 2010 No Major Changes.

MISCELLANEOUS

23 Sep 2010 No Major Changes.

MIAMI SECTIONAL
87th Edition, 26 Aug 2010

OBSTRUCTIONS

23 Sep 2010 No Major Changes.

AIRPORTS

23 Sep 2010 No Major Changes.

NAVAIDS

23 Sep 2010 No Major Changes.

AIRSPACE

23 Sep 2010 No Major Changes.

SPECIAL USE AIRSPACE

23 Sep 2010 No Major Changes.

MILITARY TRAINING ROUTES

23 Sep 2010 No Major Changes.

MISCELLANEOUS

23 Sep 2010 No Major Changes.

MIAMI TERMINAL AREA CHART
76th Edition, 26 Aug 2010

OBSTRUCTIONS

23 Sep 2010 No Major Changes.

AIRPORTS

23 Sep 2010 No Major Changes.

NAVAIDS

23 Sep 2010 No Major Changes.

AIRSPACE

23 Sep 2010 No Major Changes.

SPECIAL USE AIRSPACE

23 Sep 2010 No Major Changes.

MILITARY TRAINING ROUTES

23 Sep 2010 No Major Changes.

MISCELLANEOUS

23 Sep 2010 No Major Changes.

NEW ORLEANS SECTIONAL

86th Edition, 3 Jun 2010

OBSTRUCTIONS**3 Jun 2010** No Major Changes.**29 Jul 2010** Add obst 429' MSL (310' AGL), 31°34'24"N, 87°57'06"W.

Add obst 670' MSL (310' AGL), 32°02'25"N, 85°24'42"W.

Add obst 328' MSL (210' AGL), 31°26'25"N, 88°09'19"W.

Add obst 393' MSL (259' AGL), 31°02'34"N, 84°48'11"W.

Add obst 627' MSL (349' AGL), 32°11'34"N, 87°38'49"W.

23 Sep 2010 Add obst 603' MSL (260' AGL), 32°06'42"N, 87°46'49"W.

Add obst 459' MSL (257' AGL) UC, 31°46'12"N, 88°12'19"W.

Add obst 429' MSL (310' AGL) UC, 32°13'17"N, 88°08'52"W.

Add obst 281' MSL (258' AGL), 30°19'23"N, 85°35'43"W.

Add obst 328' MSL (290' AGL) UC, 30°37'43"N, 88°26'25"W.

Add obst 640' MSL (257' AGL), 31°44'38"N, 86°25'20"W.

Add obst 436' MSL (315' AGL), 31°03'21"N, 89°44'52"W.

Add obst 753' MSL (310' AGL), 31°58'34"N, 90°15'53"W.

AIRPORTS**3 Jun 2010 29 Jul 2010** No Major Changes.**23 Sep 2010** BRUNDIDGE arpt abandoned, 31°43'58"N, 85°48'15"W.**NAVAIDS****3 Jun 2010 – 23 Sep 2010** No Major Changes.**AIRSPACE****3 Jun 2010 – 23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****3 Jun 2010** No Major Changes.**29 Jul 2010** Add Gulfport, MS MOA-SNAKE beginning at 29°42'51"N, 88°49'30"W to 29°41'20"N, 88°38'33"W then 12 NM from and parallel to the shoreline to 29°24'25"N, 88°54'05"W then 12 NM from and parallel to the shoreline to 29°08'46"N, 88°45'36"W to 29°34'32"N, 89°21'26"W to 29°50'00"N, 89°15'00"W to 29°56'15"N, 89°09'00"W to 30°06'00"N, 88°51'00"W then 3 NM offshore of the Chandeleur Islands to the point of beginning. Altitude: 6000 MSL to but not including FL 180, Time of use intermittent; sunrise to sunset; other times by NOTAM. Controlling agency HOUSTON ARTCC.

Add Gulfport, MS MOA-SNAKE LOW beginning at 29°42'51"N, 88°49'30"W to 29°41'20"N, 88°38'33"W then 12 NM from and parallel to the shoreline to 29°24'25"N, 88°54'05"W then 12 NM from and parallel to the shoreline to 29°08'46"N, 88°45'36"W to 29°34'32"N, 89°21'26"W to 29°50'00"N, 89°15'00"W to 29°56'15"N, 89°09'00"W to 30°06'00"N, 88°51'00"W then 3 NM offshore of the Chandeleur Islands to the point of beginning. Altitude: 3000 MSL to but not including 6000 MSL Time of use: intermittent, sunrise to sunset; other times by NOTAM. Controlling agency HOUSTON ARTCC.

Add Gulfport, MS W-148A beginning at 29°36'11"N, 88°01'30"W to 28°51'21"N, 88°01'30"W to 29°00'57"N, 88°36'10"W to 29°08'46"N, 88°45'36"W then 12 NM from and parallel to the shoreline. to 29°24'25"N, 88°54'05"W then 12 NM from and parallel to the Chandeleur Islands to 29°41'20"N, 88°38'33"W to the point of beginning. Altitude: surface to but not including 6000 MSL Time of use: intermittent, sunrise to sunset; other times by NOTAM. Controlling agency HOUSTON ARTCC.

Add Gulfport, MS W-148B beginning at 29°36'11"N, 88°01'30"W to 28°51'21"N, 88°01'30"W to 29°00'57"N, 88°36'10"W to 29°08'46"N, 88°45'36"W then 12 NM from and parallel to the shoreline to 29°24'25"N, 88°54'05"W then 12 NM from and parallel to the Chandeleur Islands to 29°41'20"N, 88°38'33"W to the point of beginning. Altitude: 6000 MSL to FL 600 time of use intermittent, sunrise to sunset; other times by NOTAM. Controlling agency HOUSTON ARTCC.

Delete Gulfport, MS W-453.

Add Gulfport, MS W-453A beginning at 30°09'16"N, 88°01'30"W to 29°36'11"N, 88°01'30"W to 29°42'51"N, 88°49'30"W then 3 nm from and parallel to the Chandeleur Islands to 30°06'01"N, 88°51'00"W to 30°11'01"N, 88°41'40"W then 3 NM from and parallel to the shoreline to point of beginning. Altitude: surface to but not including 6000 MSL time of use intermittent, sunrise to sunset; other times by NOTAM. Controlling agency HOUSTON ARTCC.

Add Gulfport, MS W-453B beginning at 30°09'16"N, 88°01'30"W to 29°36'11"N, 88°01'30"W to 29°42'51"N, 88°49'30"W then 3 NM from and parallel to Chandeleur Islands to 30°06'01"N, 88°51'00"W to 30°11'01"N, 88°41'40"W then 3 NM from and parallel to the shoreline to the point of beginning. Altitude: 6000 MSL to FL 600 time of use intermittent, sunrise to sunset; other times by NOTAM. Controlling agency HOUSTON ARTCC.

23 Sep 2010 No Major Changes.**MILITARY TRAINING ROUTES****3 Jun 2010 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****3 Jun 2010 – 23 Sep 2010** No Major Changes.

ORLANDO TERMINAL AREA CHART**41st Edition, 26 Aug 2010****OBSTRUCTIONS****23 Sep 2010** No Major Changes.**AIRPORTS****23 Sep 2010** No Major Changes.**NAVAIDS****23 Sep 2010** No Major Changes.**AIRSPACE****23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****23 Sep 2010** No Major Changes.**MISCELLANEOUS****23 Sep 2010** No Major Changes.

PUERTO RICO–VIRGIN ISLAND TERMINAL AREA CHART**36th Edition, 22 Oct 2009****OBSTRUCTIONS****22 Oct 2009 – 17 Dec 2009** No Major Changes.**11 Feb 2010** Add obst 818' MSL (260' AGL) UC, 18°02'29"N, 66°50'24"W.**8 Apr 2010 – 23 Sep 2010** No Major Changes.**AIRPORTS****22 Oct 2009 – 23 Sep 2010** No Major Changes.**NAVAIDS****22 Oct 2009 – 23 Sep 2010** No Major Changes.**AIRSPACE****22 Oct 2009 – 23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****22 Oct 2009 – 23 Sep 2010** No Major Changes.

ST. LOUIS SECTIONAL

82nd Edition, 1 Jul 2010

OBSTRUCTIONS

29 Jul 2010 Add obst 1022' MSL (308' AGL) UC, 39°38'13"N, 87°04'56"W.
 Add obst 883' MSL (383' AGL) UC, 37°21'47"N, 87°30'56"W.
 Add obst 1386' MSL (255' AGL) UC, 37°10'17"N, 84°34'39"W.
 Add obst 990' MSL (258' AGL) UC, 39°53'39"N, 88°43'31"W.
 Add obst 848' MSL (260' AGL) UC, 38°50'53"N, 90°47'56"W.
23 Sep 2010 Add obst 1088' MSL (299' AGL), 38°48'58"N, 84°46'53"W.
 Add obst 941' MSL (278' AGL) UC, 39°23'29"N, 89°51'46"W.
 Add obst 876' MSL (258' AGL) UC, 39°32'44"N, 89°09'24"W.
 Add obst 1109' MSL (310' AGL) UC, 38°50'24"N, 85°29'50"W.
 Add obst 835' MSL (290' AGL) UC, 36°34'39"N, 87°08'32"W.
 Add obst 2115' MSL (265' AGL) UC, 36°08'04"N, 85°04'08"W.
 Add obst 972' MSL (255' AGL), 37°42'39"N, 86°31'35"W.
 Add obst 1049' MSL (255' AGL), 37°06'16"N, 85°26'55"W.

AIRPORTS

29 Jul 2010 Change CTAF 122.9 to 122.8 at CYNTHIANA-HARRISON CO arpt 38°21'58"N, 84°17'00"W.
23 Sep 2010 Delete CAREFERRE ACRES arpt, 39°10'59"N, 87°07'34"W.
 Delete ARRAS RLA arpt, 39°20'17"N, 90°10'41"W.
 Change CTAF 122.8 to 123.05 at ALEXANDRIA arpt, 40°13'57"N, 85°38'15"W.
 Change CTAF 122.8 to 122.9 at CYNTHIANA-HARRISON CO arpt, 38°21'58"N, 84°17'00"W.

NAVAIDS

29 Jul 2010 Delete DYERSBURG NDB, 35°59'42"N, 89°24'20"W.
23 Sep 2010 Delete NORTH VERNON NDB, 39°02'59"N, 85°36'03"W.
 Delete GENEVA NDB, 37°48'11"N, 87°46'14"W.

AIRSPACE

29 Jul 2010 Revise MARION, IL Class E: That airspace extending upward from 700 feet above the surface bounded by a line beginning at lat. 37°53'40" N., long. 88°48'35" W.; to lat. 37°56'25" N., long. 89°02'40" W.; to lat. 37°58'45" N., long. 89°20'25" W.; to lat. 37°47'25" N., long. 89°26'00" W.; to lat. 37°42'10" N., long. 89°24'00" W.; to lat. 37°40'46" N., long. 89°20'17" W.; to lat. 37°34'56" N., long. 89°20'25" W.; to lat. 37°34'48" N., long. 89°10'21" W.; to lat. 37°37'05" N., long. 89°10'18" W.; to lat. 37°32'50" N., long. 88°59'00" W.; to lat. 37°42'35" N., long. 88°52'15" W.; to the point of beginning.
 Revise MANILA, AR Class E: That airspace extending upward from 700 feet above the surface within a 6.4-mile radius of Manila Municipal Airport.
23 Sep 2010 No Major Changes.

SPECIAL USE AIRSPACE

29 Jul 2010 No Major Changes.
23 Sep 2010 Add SULLIVAN, IN. Restricted Area, R-3405. Beginning at 39°07'41"N, 87°22'02"W; to 39°07'41"N, 87°21'29"W; to 39°07'39"N, 87°21'29"W; to 39°07'39"N, 87°21'26"W; to 39°07'41"N, 87°21'25"W; to 39°07'41"N, 87°21'12"W; to 39°07'00"N, 87°21'08"W; to 39°07'00"N, 87°21'46"W; to 39°06'36"N, 87°21'47"W; to 39°06'36"N, 87°22'03"W; to the point of beginning. Designated altitudes. Surface up to and including 1,600 feet MSL. Times of Designation. By NOTAM 24 hours in advance. Controlling Agency. FAA, Terre Haute ATCT.
 Revise CRANE, IN. Restricted Area R-3404. That airspace within a 1 NM radius of 38°49'30"N, 86°50'08"W. Designated altitudes. Surface to and including 4,100 feet MSL. Time of designation. Sunrise to sunset, daily from May 1 through and including November 1. Other times by NOTAM 24 hours in advance. Controlling agency. FAA, Terre Haute ATCT.

MILITARY TRAINING ROUTES

29 Jul 2010 – 23 Sep 2010 No Major Changes.

MISCELLANEOUS

29 Jul 2010 – 23 Sep 2010 No Major Changes.

TAMPA TERMINAL AREA CHART
41st Edition, 26 Aug 2010**OBSTRUCTIONS****23 Sep 2010** No Major Changes.**AIRPORTS****23 Sep 2010** No Major Changes.**NAVAIDS****23 Sep 2010** No Major Changes.**AIRSPACE****23 Sep 2010** No Major Changes.**SPECIAL USE AIRSPACE****23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****23 Sep 2010** No Major Changes.**MISCELLANEOUS****23 Sep 2010** No Major Changes.

U.S. GULF COAST VFR CHART
24th Edition, 22 Oct 2009**OBSTRUCTIONS****22 Oct 2009 – 23 Sep 2010** No Major Changes.**AIRPORTS****22 Oct 2009 – 23 Sep 2010** No Major Changes.**NAVAIDS****22 Oct 2009 – 23 Sep 2010** No Major Changes.**AIRSPACE****22 Oct 2009 – 17 Dec 2009** No Major Changes.**11 Feb 2010** Add LCHCB IFR Waypoint, 29°31'39"N, 93°00'00"W.

Add LCHLB IFR Waypoint, 29°32'11"N, 93°20'00"W.

Add LCHRB IFR Waypoint, 29°31'04"N, 92°40'00"W.

Add LLACB IFR Waypoint, 29°30'31"N, 92°00'00"W.

Add LLALB IFR Waypoint, 29°30'49"N, 92°20'00"W.

Add LLARB IFR Waypoint, 29°30'10"N, 91°43'49"W.

8 Apr 2010 – 23 Sep 2010 No Major Changes.**SPECIAL USE AIRSPACE****22 Oct 2009 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****22 Oct 2009 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****22 Oct 2009 – 23 Sep 2010** No Major Changes.

WASHINGTON SECTIONAL
88th Edition, 29 Jul 2010**OBSTRUCTIONS****29 Jul 2010** No Major Changes.**23 Sep 2010** Add obst 412' MSL (230' AGL), 38°22'46"N, 77°25'07"W.

Add obst 723' MSL (270' AGL) UC, 39°45'39"N, 76°01'48"W.

Add obst 636' MSL (310' AGL), 36°24'11"N, 77°55'45"W.

Add obst 226' MSL (220' AGL), 36°13'42"N, 76°08'05"W.

Add obst 647' MSL (400' AGL), 36°12'41"N, 78°04'09"W.

Add obst 1342' MSL (355' AGL) UC, 39°20'19"N, 78°45'27"W.

AIRPORTS**29 Jul 2010 – 23 Sep 2010** No Major Changes.**NAVAIDS****29 Jul 2010** No Major Changes.**23 Sep 2010** Shutdown AZALEA PARK NDB, 38°00'37"N, 78°31'05"W.

Delete COGAN NDB, 39°05'11"N, 78°04'07"W.

AIRSPACE**29 Jul 2010** No Major Changes.**23 Sep 2010** Change PHILADELPHIA Class B freq from 126.6 to 133.875**SPECIAL USE AIRSPACE****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MILITARY TRAINING ROUTES****29 Jul 2010 – 23 Sep 2010** No Major Changes.**MISCELLANEOUS****29 Jul 2010 – 23 Sep 2010** No Major Changes.

SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private-use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

UNITED STATES

FACILITY NAME	CHART & PANEL
Frankfort, IL (LL40) Chicago App/Dep Con 133.1 285.6	L-28H
Glasgow Industrial, MT (07MT) Salt Lake Center App/Dep Con 126.85 305.2	H-1E, 2F, L-13D
USAF Academy Bullseye Aux Airstrip, CO (CO90) ASOS 118.325	L-10F
West Kentucky Airpark, KY (5KY3) Memphis Center App/Dep Con 133.65 292.15	L-16I
William P Gwinn, FL (06FA) Gwinn Tower 120.4 279.25 (Mon-Fri 1300-2100Z) Gnd Con 121.65 279.25	H-8I, L-23C

CANADA

FACILITY NAME	CHART & PANEL
Abbotsford, BC (CYXX) ATIS 119.8 (1500-0700Z) Victoria Trml App/Dep Con 132.7 (Avbl on ground) 290.8 Tower 119.4 (Inner) 121.0 (Outer) 295.0 (1500-0700Z) Gnd Con 121.8 MF 119.4 295.0 (0700-1500Z) (Shape irregular to 4500')	H-1B, L-12F
Amos/Magny, QC (CYEY) Montreal Center App/Dep Con 125.9	H-11B
Atikokan Muni, ON (CYIB) MF 122.3 (5 NM to 4500' No ground station)	L-14I
Barrie-Orillia (Lake Simcoe Rgnl), ON (CYLS) AWOS 122.55 (Pvt) Toronto Center App/Dep Con 124.025	H-11B, L-31D
Bar River, ON (CPF2) Toronto Center App/Dep Con 132.65	L-31C
Bathurst, NB (CZBF) Moncton Center App/Dep Con 134.25	L-32J
Boundary Bay, BC (CZBB) ATIS 125.5 (1500-0700Z) Vancouver App/Dep Con 132.3 363.8 Tower 118.1 (Inner) 127.6 (Outer) (1500-0700Z) Gnd Con 124.3 MF 118.1 (0700-1500Z to 2000'. Vancouver Trml 125.2 above 2000'. Shape irregular to 2500')	H-1B, L-1E
Brampton, ON (CNC3) Toronto Trml App/Dep Con 119.3 253.1	L-31D
Brandon Muni, MB (CYBR) Winnipeg Center App/Dep Con 132.25 285.4 MF 122.1 (5 NM to 4000')	H-2H
Brantford, ON (CYFD) Toronto Trml App/Dep Con 128.27	L-31D
Brockville-Thousand Islands Rgnl Tackaberry, ON (CNL3) Montreal Center App/Dep Con 134.675	L-32G
Bromont, QC (CZBM) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400')	L-32G
Burlington Airpark, ON (CZBA) Toronto Center App/Dep Con 119.3 253.1	L-31D
Castlegar/West Kootenay Rgnl, BC (CYCG) Vancouver Center App/Dep Con 134.2 227.3 MF 122.1 (5 NM to 6500')	H-1C
Centralia/James T. Fld Muni, ON (CYCE) Toronto Center App/Dep Con 135.30	H-10G, 11B, L-31D
Charlottetown, PE (CYYG) Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200')	H-11E, L-32J
Chatham-Kent, ON (CNZ3) Cleveland Center App/Dep Con 132.25	H-10G, L-30G

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3) Toronto Center App/Dep Con 124.02	H-11B, L-31D
Cornwall Rgnl, ON (CYCC) Boston Center App/Dep Con 135.25 377.1	L-32G
Cranbrook/Canadian Rockies Intl, BC (CYXC) Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100')	H-1C
Debert, NS (CCQ3) Halifax Trml App/Dep Con 119.2	H-11E, L-32J
Digby, NS (CYID) Moncton Center App/Dep Con 123.9	L-32J
Downsview, ON (CYZD) Toronto Center App/Dep Con 133.4 MF 126.2 (1300-2300Z†, 3 NM to 1700')	H-11B, L-31E
Drummondville, QC (CSC3) Montreal Center App/Dep Con 132.35	L-32H
Earlton (Timiskaming Rgnl), ON (CYXR) MF 122.0 (5 NM to 3800') AWOS 128.6	H-11B
Elliot Lake Muni, ON (CYEL) Toronto Center App/Dep Con 135.4	L-31C
Fort Frances Muni, ON (CYAG) Minneapolis Center App/Dep Con 120.9	L-14H
Fredericton Intl, NB (CYFC) ATIS 127.55 (1045-0245Z†, OT AWOS) Moncton Center App/Dep Con 124.3 135.5 270.8 Tower 119.0 (1045-0245Z†) Gnd Con 121.7 (1045-0245Z†) MF 119.0 (0245-1045Z†, 5 NM to 3500')	H-11E, L-32I
Goderich, ON (CYGD) Toronto Center App/Dep 135.3 266.3	H-11B, L-31D
Greenwood, NS (CYZX) ATIS 128.85 244.3 (1100-0000Z†) App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3 Gnd Con 133.75 289.4 Clnc Del 128.025 283.9	H-11E, L-32J
Grimsby Air Park, ON (CNZ8) Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	L-31E
Halifax/Shearwater, NS (CYAW) ATIS 129.175 (Ltd hrs) App/Dep Con 119.2 MF Shearwater Advisory 119.0 126.2 340.2 360.2 (Ltd hrs) Gnd Con 121.7 250.1	H-11E, L-32J
Halifax/Stanfield Intl, NS (CYHZ) ATIS 121.0 Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 363.8 Tower 118.4 236.6 Gnd Con 121.9 275.8 Clnc Del 123.95 Apron Advisory 122.125	H-11E, L-32J
Hamilton, ON (CYHM) ATIS 128.1 Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0 Gnd Con 121.6	H-10H, 11B, L-11B
Kingston, ON (CYGK) Montreal Center App/Dep Con 135.05 398.4 (0400-1115Z†) MF 122.5 (1115-0400Z† 5 NM to 3300')	H-11C, L-31E, 32F
Kitchener/Waterloo, ON (CYKF) ATIS 125.1 (1200-0400Z†) Toronto Trml App/Dep Con 128.275 Waterloo Tower 126.0 118.55 (1200-0400Z†) Gnd Con 121.8 MF 126.0 (0400-1200Z† 5 NM to 4000')	H-11B, L-31D
Lachute, QC (CSE4) Montreal Center App Con 124.65 132.85 268.3 Montreal Center Dep Con 132.85 268.3	L-32G
La Tuque, QC (CYLQ) Montreal Center App/Dep Con 134.5	H-11C
Langley, BC (CYNJ) ATIS 124.5 (1630-0230Z, DT 1530-0330Z) Victoria Trml App/Dep Con 132.7 290.8 Tower 119.0 (1630-0230Z, DT 1530-0330Z) Gnd Con 121.9 MF 119.0 (0230-1630Z, DT 0330-1530Z 3 NM to 1900')	L-1E

FACILITY NAME	CHART & PANEL
Leamington, ON (CLM2) Cleveland Center App/Dep Con 132.45	L-30F
Lethbridge, AB (CYQL) ATIS 124.4 (1300-0545Z‡) Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000')	H-1D
Lindsay, ON (CNF4) Toronto Center App/Dep 134.25	L-31E, L-32F
Liverpool/South Shore Rgnl, NS (CYAU) Moncton Center App/Dep Con 123.9	L-32J
London, ON (CYXU) ATIS 127.8 (1120-0345Z‡) Toronto Center App/Dep 135.3 135.625 Tower 119.4 125.65 (1120-0345Z‡) Gnd Con 121.9 MF 119.4 (0345-1120Z‡ 5 NM to 3000')	H-10G, 11B, L-30G, 31D
Manitowaning/Manitoulin East Muni, ON (CYEM) Toronto Center App/Dep 135.4 260.9	L-31C
Maniwaki, QC (CYMW) Montreal Center App/Dep Con 126.57	L-32G
Mascouche, QC (CSK3) MF 122.35 (5 NM to 2500'. No gnd station. Excluding the portion S of the N shore of Riviere des Milles-Iles and 1 NM around Lac Agile Mascouche arpt.)	L-32G
Medicine Hat, AB (CYXH) AWOS 124.875 (0345-1245Z‡) MF 122.2 (1245-0345Z‡ 5 NM to 5400')	H-1D
Midland/Huronía, ON (CYEE) Toronto Center App/Dep 124.025	L-31D
Miramichi, NB (CYCH) Moncton Center App/Dep Con 123.7	H-11E, L-32J
Moncton/Greater Moncton Intl, NB (CYQM) ATIS 128.65 App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8 Apron Advisory 122.075	H-11E, L-32J
Mont-Laurier, QC (CSD4) Montreal Center App/Dep Con 126.57	L-32G
Montreal Intl (Mirabel), QC (CYMX) ATIS 125.7 Montreal Center App Con 124.65 132.85 268.3 Montreal Dep Con 132.85 268.3 MF 119.1 (7 NM shape irregular to 2000') VFR Advisory 134.15	H-11C, 12K, L-32G
Montreal/Pierre Elliott Trudeau Intl, QC (CYUL) ATIS 133.7 Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3 Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075 Montreal Trml Dep Con 118.9 (SE-S-SW) 124.65 (W-NW-NE) 268.3 VFR Advisory 134.15	H-11C, 12K, L-32G
Montreal/St-Hubert, QC (CYHU) ATIS 124.9 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) AWOS 124.9 Montreal Center App/Dep Con 125.15 268.3 St. Hubert Tower 118.4 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) Gnd Con 126.4 MF 118.4 (Apr-Oct 0500-1045Z‡, Nov-Mar 0400-1045Z 5 NM shape irregular to 2500') VFR Advisory 134.15	H-11C, L-32G
Muskoka, ON (CYQA) AWOS 124.575 Timmins Radio App/Dep Con 122.3 MF 122.3 (5 NM to 3900')	H-11B, L-31D
Nanaimo, BC (CYCD) Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 291.8 1330-0530Z‡ (5 NM to 2500')	H-1B, L-1E
North Bay, ON (CYYB) ATIS 124.9 (1130-0330Z‡) Toronto Center App/Dep 121.225 127.25 MF 118.3 (1130-0330Z‡ 7 NM to 5000')	H-11B, L31D
Oshawa, ON (CYOO) ATIS 125.675 (1130-0330Z‡) Toronto Trml App/Dep Con 133.4 Tower 120.1 (1130-0330Z‡) Gnd Con 118.4 MF 120.1 (0330-1130Z‡ 5 NM to 3000')	L-31E

FACILITY NAME	CHART & PANEL
Ottawa/Carp, ON (CYRP) ATIS 121.15 Ottawa Trml App/Dep Con 128.175	L-31E, 32F
Ottawa/Gatineau, QC (CYND) Ottawa Trml App/Dep Con 127.7 128.175 MF 122.3 (5 NM shape irregular to 2500') VFR Advisory Ottawa Trml 127.7	H-11C, L-32G
Ottawa/MacDonald-Cartier Intl, ON (CYOW) ATIS 121.15 Ottawa App Con 135.15 Tower 118.8 (VFR South) 120.1 (VFR North) 118.8 341.3 Gnd Con 121.9 Cinc Del 119.4 Ottawa Dep Con 128.175	L-11C
Owen Sound/Billy Bishop Rgnl, ON (CYOS) Toronto Center App/Dep 132.575 290.6	L-31D
Pelee Island, ON (CYPT) Cleveland Center App/Dep Con 126.35 360.0	L-30F
Pembroke, ON (CYTA) Montreal Center App/Dep Con 135.2 Petawawa Advisory 126.4 250.1 (Mon-Fri 1300-2130Z†, OT PPR)	H-11C, L-31E, 32F
Penticton, BC (CYYF) Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100')	H-1B
Peterborough, ON (CYPQ) AWOS 126.925 Toronto Center App/Dep 134.25	H-11B, L-31E, 32F
Pincher Creek, AB (CZPC) Edmonton Center App/Dep Con 132.75 265.2	H-1D
Pitt Meadows, BC (CYPK) ATIS 125.0 (1500-0700Z†) Vancouver Center App Con 128.6 352.7 (Outer) Pitt Tower 126.3 (1500-0700Z†) Gnd Con 123.8 Vancouver Center Dep Con 132.3 363.8 (South) MF 126.3 (0700-1500Z†) (3NM to 2500')	L-1E
Quebec/Jean Lesage Intl, QC (CYQB) ATIS 134.6 Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8 Tower 118.65 236.6 Gnd Con 121.9 250.0	H-11D, L-32H
Riviere Du Loup, QC (CYRI) AWOS 122.025 (Pvt) Montreal Center App/Dep Con 125.1 299.6	H-11D
Rouyn Noranda, QC (CYUY) Montreal Center App/Dep Con 125.9 MF 122.2 (5 NM to 4000')	H-11B
Saint John, NB (CYSJ) Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400')	H-11E, L-32J
Sarnia (Chris Hadfield), ON (CYZR) AWOS 119.125 Toronto Center App/Dep Con 134.375	H-10G, 11B, L-30F
Sault Ste Marie, ON (CYAM) ATIS 133.05 (1300-0100Z†) Toronto Center App/Dep Con 132.65 344.5 Tower 118.8 (1300-0100Z†) Gnd Con 121.7 (1300-0100Z†) MF 118.8 (0100-1300Z† 5 NM irregular shape to 3000')	H-2K, L-31B
Sherbrooke, QC (CYAM) AWOS 126.25 Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800')	H-11D, L-32H
South Renfrew Muni, ON (CNP3) Montreal Center App/Dep 124.275	L-31E, 32F
Southport, MB (CYPG) ATIS 120.85 (Mon-Fri 1400-2300Z† except holidays) Tower 126.2 384.2 (Mon-Fri 1400-2300Z† except holidays) Gnd Con 121.7 275.8	H-2H

FACILITY NAME	CHART & PANEL
Springwater Barrie Airpark, ON (CNA3) Toronto Center App/Dep Con 124.025	L-31D
St. Catharines/Niagara District, ON (CYSN) ATIS 128.525 (1215-0200Z‡) Toronto Trml App/Dep Con 133.4 253.1 MF 123.25 (1215-0200Z‡ 5 NM to 3300')	H-10H, 11B, L-31E
St. Frederic, QC (CSZ4) Montreal Center App/Dep Con 135.025 270.9	L-32H
St. Georges, QC (CYSG) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM 3900' ASL)	H-32H, L-11D
St. Jean, QC (CYJN) Montreal Center App/Dep Con 125.15 268.3 Tower 118.2 (Apr-Oct 1230-0230Z‡ Nov-Mar 1300-0200Z‡) Gnd Con 121.7	L-32G
Sudbury, ON (CYSB) ATIS 127.4 Toronto Center App/Dep Con 135.5 MF 125.5 (7 NM to 4000')	H-31B, 10G, L-31D
Summerside, PE (CYSU) AWOS 122.55 (Pvt) Moncton Center App/Dep Con 124.4 384.8	H-11E, L-32J
Thunder Bay, ON (CYQT) ATIS 128.8 (1100-0400Z‡) Winnipeg Center App/Dep Con 132.125 Tower 118.1 (1100-0400Z‡) Gnd Con 121.9 (1100-0400Z‡) App/Dep 119.2 MF 118.1 (0400-1100Z‡ 5 NM to 4000')	H-2J, L-14J
Timmins/Victor M. Power, ON (CYTS) ATIS 124.95 (1000-0500Z‡) Toronto Center App/Dep Con 128.3 MF 122.3 (5 NM to 4000')	H-11B
Toronto/Buttonville Muni, ON (CYKZ) ATIS 127.1 (1200-0400Z‡) Toronto Trml App/Dep Con 133.4 Tower 124.8 119.9 (1200-0400Z‡) Gnd Con 121.8 (1200-0400Z‡) MF 124.8 (0400-1200Z‡ No gnd station. 5 NM shape irregular to below 2500')	L-31E
Toronto/Billy Bishop Toronto City Airport, ON (CYYZ) ATIS 133.6 (1130-0400Z‡) App/Dep Con 133.4 Tower 118.2 119.2 (1130-0400Z‡) Gnd Con 121.7	L-31E
Toronto/Lester B Pearson Intl, ON (CYYZ) ATIS 120.825 App Con 124.475 125.4 132.8 Dep Con 127.575 128.8 Tower 118.35 118.7 Gnd Con 119.1 121.65 121.9 Clnc Del 121.3 (1200-0400Z‡)	H-11B, L-31D
Trenton, ON (CYTR) ATIS 135.45 257.7 App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8 Clnc Del 124.35 286.4	H-11C, L-31E, 32F
Trenton/Mountain View, ON (CPZ3) Trenton Mil Advisory 268.0	H-11C, L-31E, 32F
Trois-Rivieres, QC (CYRQ) Montreal Center App/Dep Con 128.225 229.2 MF 123.0 (5 NM to 3200')	H-11C, L-32H
Val-D'or, QC (CYVO) Montreal Center App/Dep Con 125.9 308.3 MF 118.5 (1030-0325Z‡ 5 NM to 4000')	H-11B
Vancouver Intl, BC (CYVR) ATIS 124.6 124.75 App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) Dep Con 126.125 (north) 132.3 (south) 363.8 Tower 118.7 (south) 119.55 (north) VFR 124.0 125.65 226.5 236.6 Gnd Con 121.7 (south) 127.15 (north) 275.8 Clnc Del 121.4	H-1B, L-1E

FACILITY NAME	CHART & PANEL
Victoria Intl, BC (CYYJ) ATIS 118.8 (1400-0800Z‡) App Con 125.95 Dep Con 133.85 Tower 119.1 (Outer) 119.7 (Inner) 239.6 Gnd Con 121.9 361.4 (1400-0800Z‡ OT ctc Kamloops 119.7) Clnc Del 126.4 (1400-0800Z‡)	H-1B, L-1E
Victoriaville, QC (CSR3) Montreal Center App Con 132.35	L-32H
Waterville/Kings Co Muni, NS (CCW3) Greenwood Trml App/Dep Con 120.6 335.9 Greenwood Tower 119.5 324.3	L-32J
Warton, ON (CYVV) Toronto Center App/Dep Con 132.575 MF 122.2 (5 NM to 3700')	H-11B, L-31D
Windsor, ON (CYQG) ATIS 134.5 (1130-0330Z‡) Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2 Tower 124.7 (1130-0330Z‡) Gnd Con 121.7 (1130-0330Z‡) MF 124.7 (0330-1130Z‡ 6 NM irregular shape to below 3000') VFR Advisory Detroit App Con 134.3	H-10G, L-8J
Yarmouth, NS (CYQI) Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100')	H-11E, L-32I

MEXICO

FACILITY NAME	CHART & PANEL
Abraham Gonzalez Intl (MMCS) Juarez App Con 119.9 Juarez Tower 118.9	H-4K, L-6F
Del Norte Intl (MMAN) ATIS 127.55 (1300-0300Z‡) Monterrey App 119.75 120.4 Tower 118.6	H-7B, L-20G
Durango Intl (MMDO) ATIS 132.1 Tower 118.1 Durango Info 122.3	H-7A
General Abelardo L Rodriguez Intl (MMTJ) ATIS 127.9 Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Tijuana Clnc Del 122.35 Tijuana Info 132.1	H-4H, L-4H
General Lucio Blanco Intl (MMRX) Reynosa App Con 118.8 Reynosa Tower 118.8	H-7B, L-20H
General Mariano Escobedo Intl (MMMY) ATIS 127.7 Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9	H-7B, L-20G
General R Fierro Villalobos Intl (MMCU) ATIS 127.9 Chihuahua App Con 121.0 Chihuahua Tower 118.4	L-6I
General Rodolfo Sanchez Taboada Intl (MMML) ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3	H-4H, L-4J, 5A
General Servando Canales Intl (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0	H-7C, L-21A
Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4	H-7B
Quetzalcoatl Intl/Nuevo Laredo Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H-7B, L-20G
Torreon Intl (MMTC) App Con 119.6 Tower 118.5	H-7A





In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.

NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

GENERAL INFORMATION

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS


Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., , , .
2. Approach lighting systems that do not bear a system identification are indicated with a negative "0"  beside the name.

A star (★) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., .
To activate lights use frequency indicated in the communication section of the chart with a  or the appropriate lighting system identification e.g., UNICOM 122.8 , , .

<u>KEY MIKE</u>	<u>FUNCTION</u>
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

CHART CURRENCY INFORMATION

FAA procedure amendment number  Amdt 11A 99365
Orig 00365 Date of latest change

The Chart Date identifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

MISCELLANEOUS

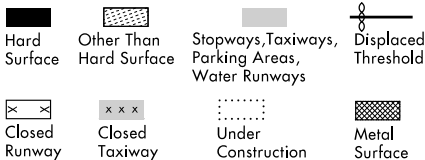
- ★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
- # Indicates control tower temporarily closed UFN.

LEGEND

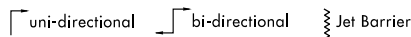
INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

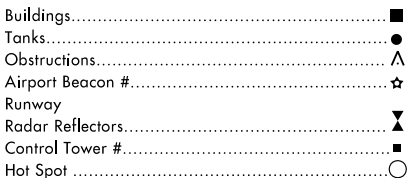


ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.



ARRESTING SYSTEM

REFERENCE FEATURES



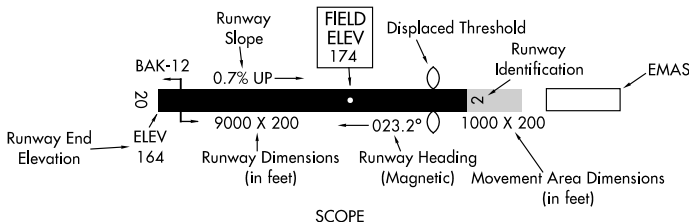
When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A **D** symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.

Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 PCN 80 F/D/X/U S-75, D-185, 2S-175, 2D-325



SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

Helicopter Alighting Areas: H, H, H, H, H

Negative Symbols used to identify Copter Procedures landing point: H, H, H, H, H

Runway Threshold elevation.....THRE 123

Runway TDZ elevation.....TDZE 123

Runway Slope.....0.3% DOWN

(shown when runway slope is greater than or equal to 0.3%)

NOTE:

Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

Positional accuracy within ±600 feet unless otherwise noted on the chart.

NOTE:

All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)

LEGEND

HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A "hot spot" is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as circles or polygons designated as "HS 1", "HS 2", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION
ALABAMA		
MONTGOMERY		
MONTGOMERY RGNL (DANNELY FIELD) (MGM)	HS 1	Intersection of Twy A3 and the terminal ramp. Potential confusion of Twy A3 as the taxi route to Rwy 10–28.
	HS 2	Intersection of the Twy A5 and the ANG ramp. Potential exiting Rwy 10–28 at Twy A5.
TUSCALOOSA		
TUSCALOOSA RGNL (TCL)	HS 1	Unusually placed Rwy 29 hold line just beyond Twy F.
FLORIDA		
DAYTONA BEACH		
DAYTONA BEACH INTL (DAB)	HS 1	Pilots taxiing southbound on Twy W sometimes miss the right turn on Twy S and enter the runway without clearance.
HOLLYWOOD		
NORTH PERRY (HWO)	HS 1	Southbound on Twy D for Rwy 27R departures—Pilots miss the turn onto Twy P and enter the rwy.
	HS 2	The hold line for Rwy 36L is also the hold line for Rwy 09R.
	HS 3	Acft taxiing on Twy L westbound to depart on Rwy 18R–36L, Twy L crosses the apch end of Rwy 36R. Pilots should obtain clearance from ground ctl prior to crossing Rwy 36R.
MIAMI		
MIAMI INTL, FL (MIA)	HS 1	Short taxi across twys to rwy.
	HS 2	Short taxi across twys to rwy.
	HS 3	Rwy 27 and Rwy 30 wrong rwy departure risk.
	HS 4	Short twy between rwys.
ORLANDO		
ORLANDO SANFORD INTL (SFB)	HS 1	Rwy 09C APCH hold (Rwy 09C APCH) enroute to Twy C.
	HS 2	The hold line for Rwy 09R on Twy R northbound is placed immediately adjacent to Twy S after crossing Rwy 36 and turning right on Twy R.
STURT		
WITHAM FIELD (SUA)	HS 1	Intersecting rwys, wrong rwy departure risk. (Check rwy alignment.)
	HS 2	Rwy 12 and Twy A1.

GEORGIA

ATLANTA		
HARTSFIELD-JACKSON	HS 1	Intersections of Twy C and Twy D at Rwy 08L-26R. Hold short line is only 250' after exiting the FBO ramp. Rwy hold bar is canted which peaks towards the twy.
ATLANTA INTL (ATL)	HS 2	Intersections of Twy C and Twy D at Rwy 08R-26L. Caution transitioning between the parallel rwys. Rwy hold bar is canted which peaks towards the twy. Rwy hold short line is only 380' away after exiting Rwy 08L-26R and 70' south of the Twy B centerline.
	HS 3	Intersection of Twy H at Rwy 08R-26L. Acft travelling westbound for the Twy V end-around, mistakenly turn southbound on Twy H and enter Rwy 08R-26L.
	HS 4	Intersection of Twy D at Rwy 09L-27R. Acft southbound on Twy D fail to turn on Twy L and Twy M and enter Rwy 09L-27R. Acft crossing Rwy 09L-27R at Twy D southbound to Twy K must turn 45 degrees left immediately after crossing the rwy hold bar.

AUGUSTA		
AUGUSTA RGNL AT BUSH FLD (AGS)	HS 1	Intersection of Twy E and Rwy 17-35.

KENTUCKY

LEXINGTON		
BLUE GRASS (LEX)	HS 1	Rwy 27 apch hold occurs prior to Rwy 22 hold line, and only applies when instructed by ATC.
LOUISVILLE		
BOWMAN FIELD (LOU)	HS 1	Acft operating near Rwy 06-24, Rwy 15-33 at midfield are in close proximity to intersecting/crossing rwy and twys.
PADUCAH		
BARKLEY RGNL (PAH)	HS 1	Rwy 14-32 at Twy F: Short taxi risk after turning on Twy F.
	HS 2	Rwy 04-22 at Twy C: Rwy confusing as another twy.
	HS 3	Rwy 04 at the end of Twy W South: Short taxi after the turn.

NORTH CAROLINA

CHARLOTTE		
CHARLOTTE/DOUGLAS INTL (CLT)	HS 1	Confusing intersection due to convergence of Twy R, Twy A, Twy C and Twy C9, along with grass island.
	HS 2	Pilots exiting Rwy 18C-36C on Twy S for either Twy E or Twy F mistakenly turn left on Twy E5 and reenter the rwy.
RALEIGH/DURHAM		
RALEIGH-DURHAM INTL (RDU)	HS 1	Intersection of Rwy 5R-23L and Twy C.

TENNESEE

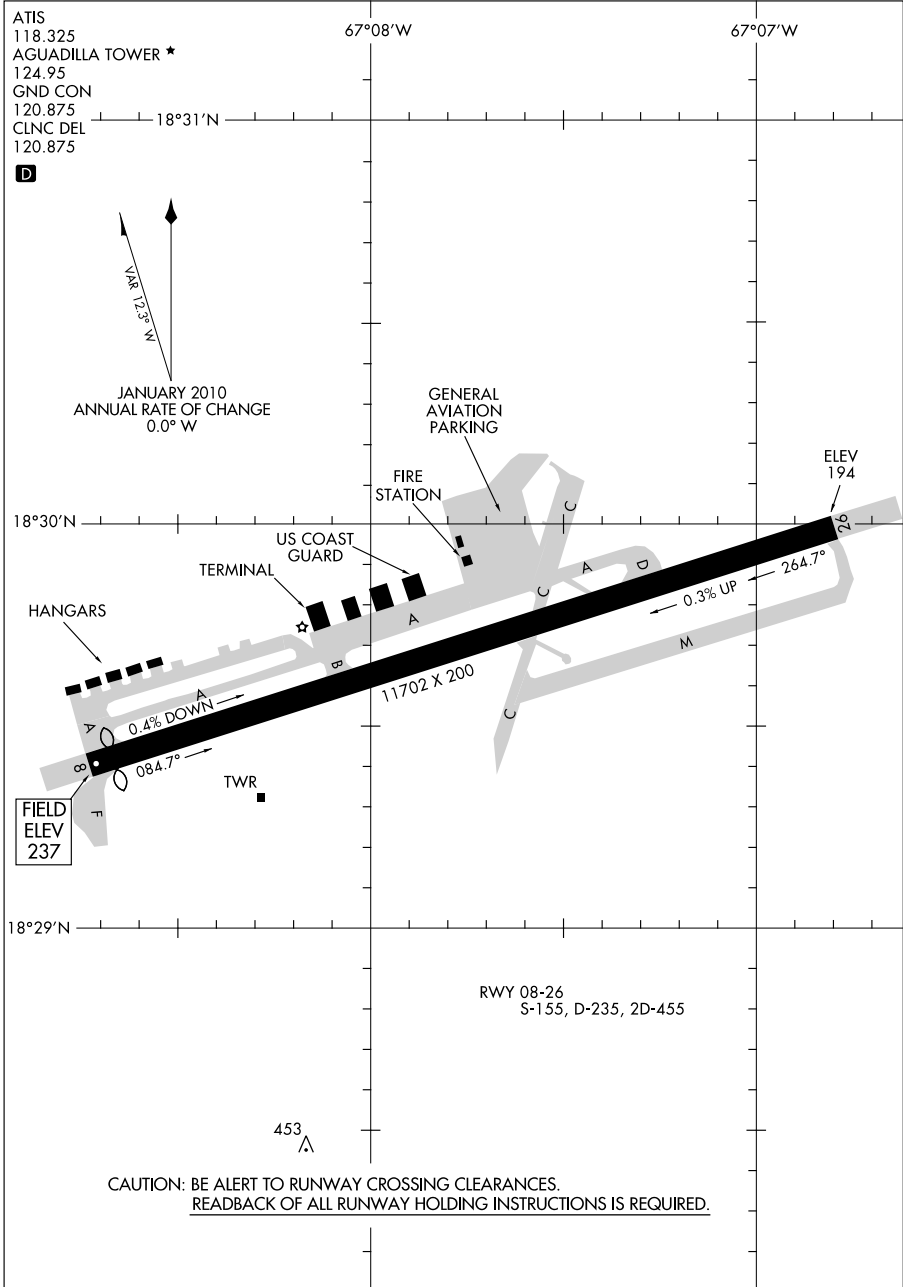
KNOXVILLE		
MC GHEE TYSON (TYS)	HS 1	Holding position marking for full length of Rwy 23L just beyond Twy A8 and Twy A.
	HS 2	Ramp exit Twy R5 short distance from Twy A and Rwy 05R-23L. Pilots miss turn onto Twy A.
	HS 3	Ramp exit Twy R4 short distance from Twy A and Rwy 05R-23L. Pilots miss turn onto Twy A.
	HS 4	Acft taxiing on Twy B4 southeast bound sometime fall to hold short of Rwy 23L.

10210

AIRPORT DIAGRAM

AGUADILLA/RAFAEL HERNANDEZ (BQN) (TJBQ)
AL-1016 (FAA)

AGUADILLA, PUERTO RICO



AIRPORT DIAGRAM

10210

AGUADILLA, PUERTO RICO
AGUADILLA/RAFAEL HERNANDEZ (BQN) (TJBQ)

SE. 23 SEP 2010 to 18 NOV 2010

10266

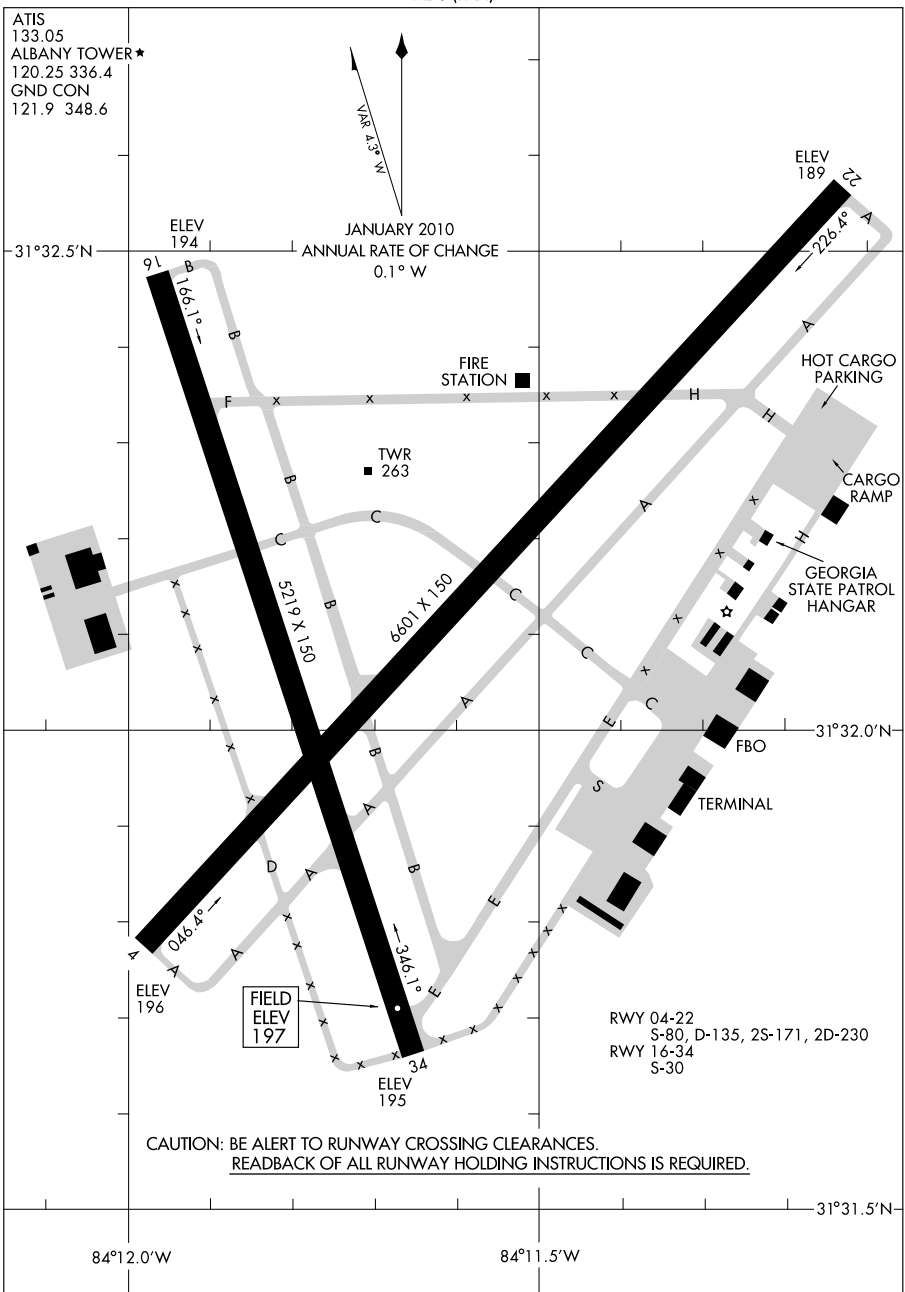
AIRPORT DIAGRAM

ALBANY/SOUTHWEST GEORGIA RGNL (ABY)

AL-8 (FAA)

ALBANY, GEORGIA

ATIS
133.05
ALBANY TOWER ★
120.25 336.4
GND CON
121.9 348.6



AIRPORT DIAGRAM

10266

ALBANY, GEORGIA
ALBANY/SOUTHWEST GEORGIA RGNL (ABY)

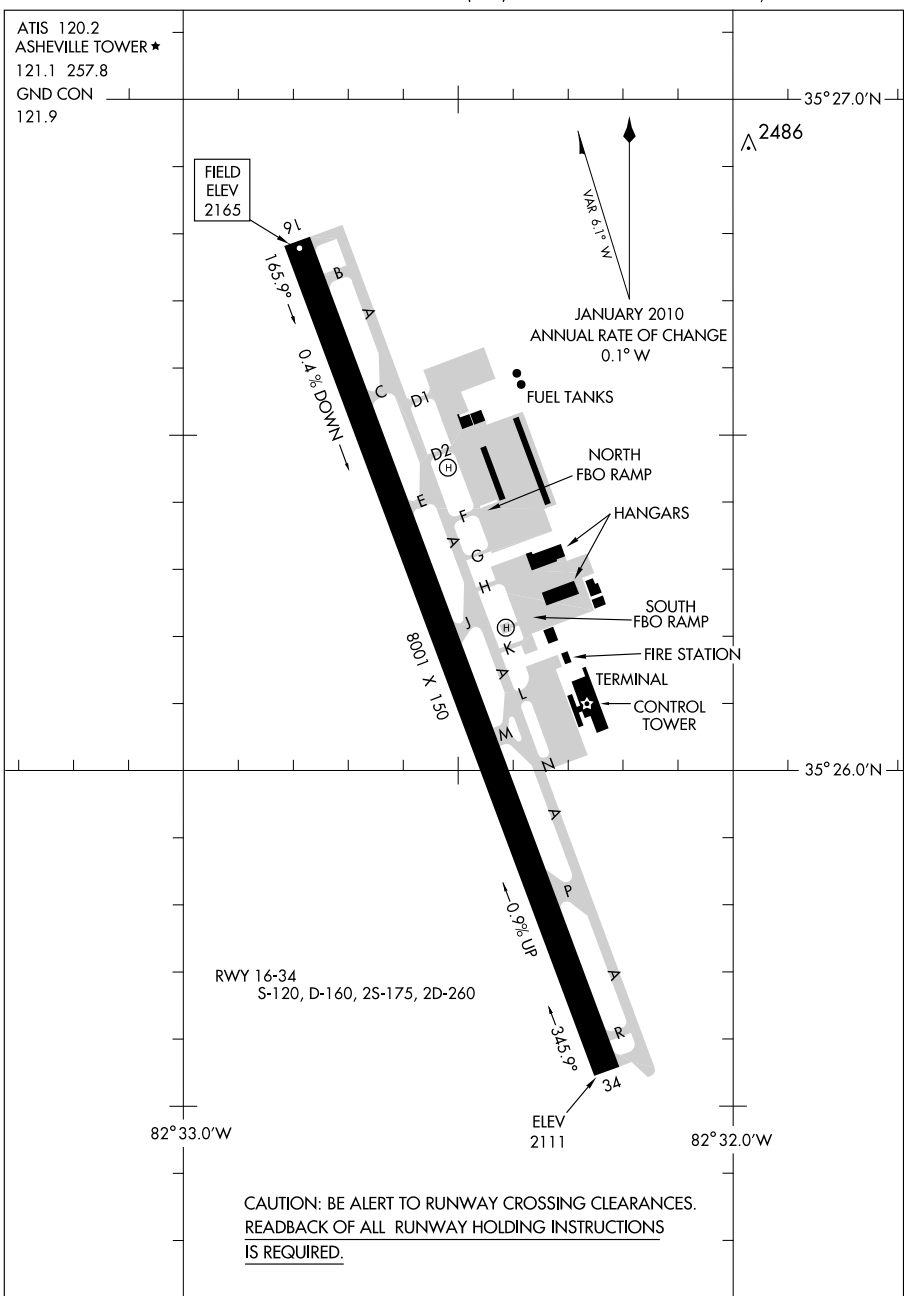
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-5061 (FAA)

ASHEVILLE RGNL (AVL)
ASHEVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

10210

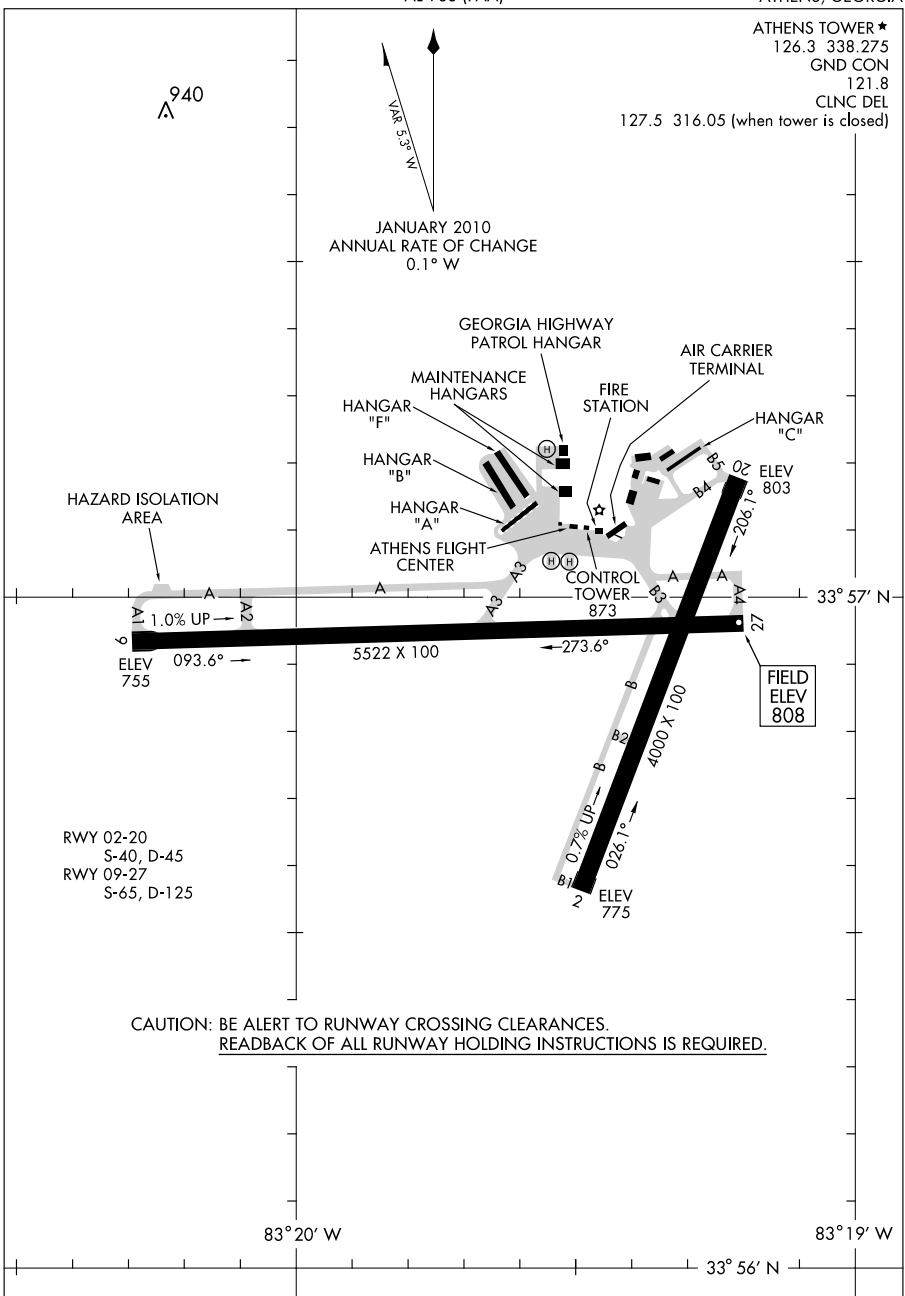
ASHEVILLE, NORTH CAROLINA
ASHEVILLE RGNL (AVL)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

ATHENS/ BEN EPPS (AHN)
ATHENS, GEORGIA



AIRPORT DIAGRAM

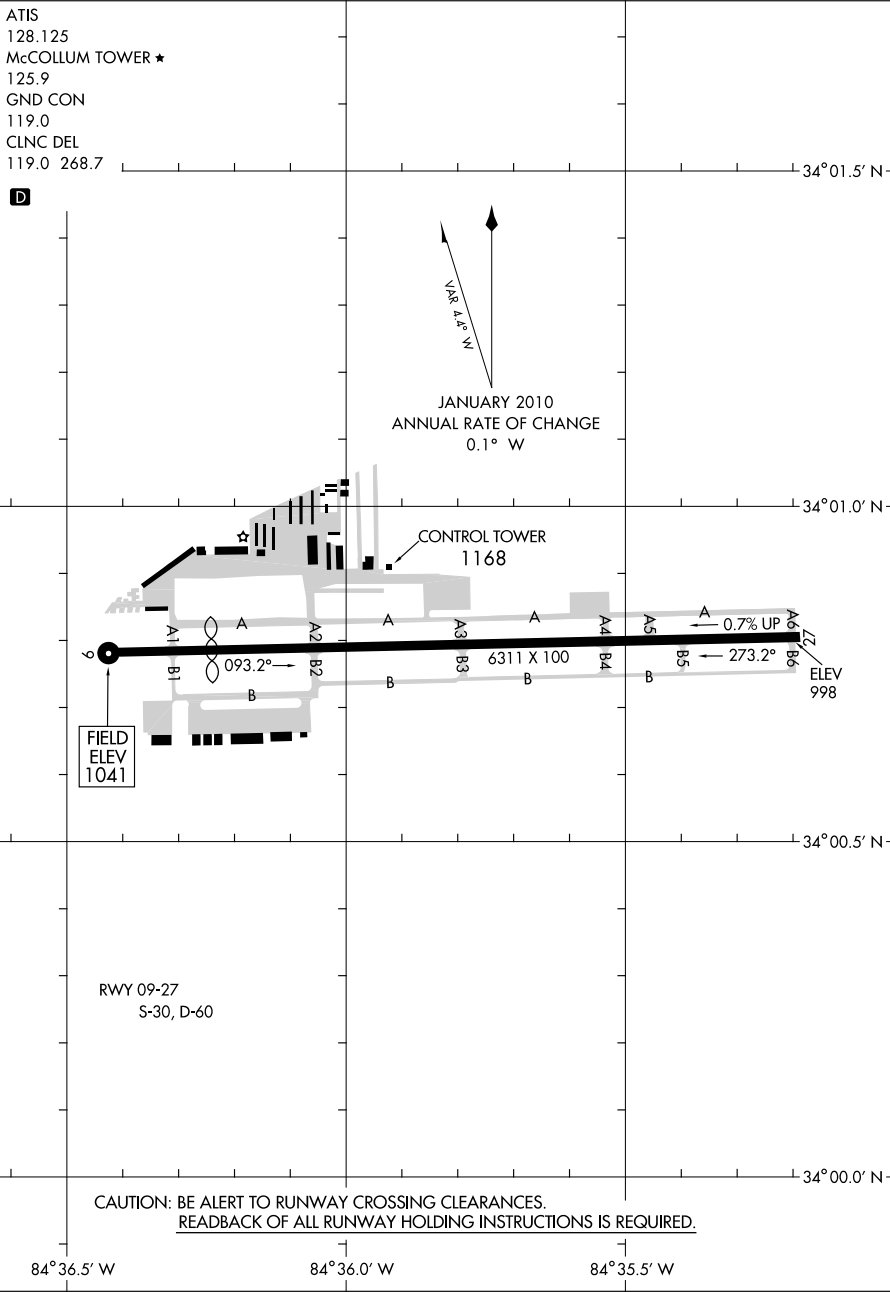
10210

ATHENS, GEORGIA
ATHENS/ BEN EPPS (AHN)

SE. 23 SEP 2010 to 18 NOV 2010

10210
AIRPORT DIAGRAM

ATLANTA/ COBB COUNTY-McCOLLUM FIELD (RYY)
AL-6424 (FAA)
ATLANTA, GEORGIA



AIRPORT DIAGRAM
10210

ATLANTA, GEORGIA
ATLANTA/ COBB COUNTY-McCOLLUM FIELD (RYY)

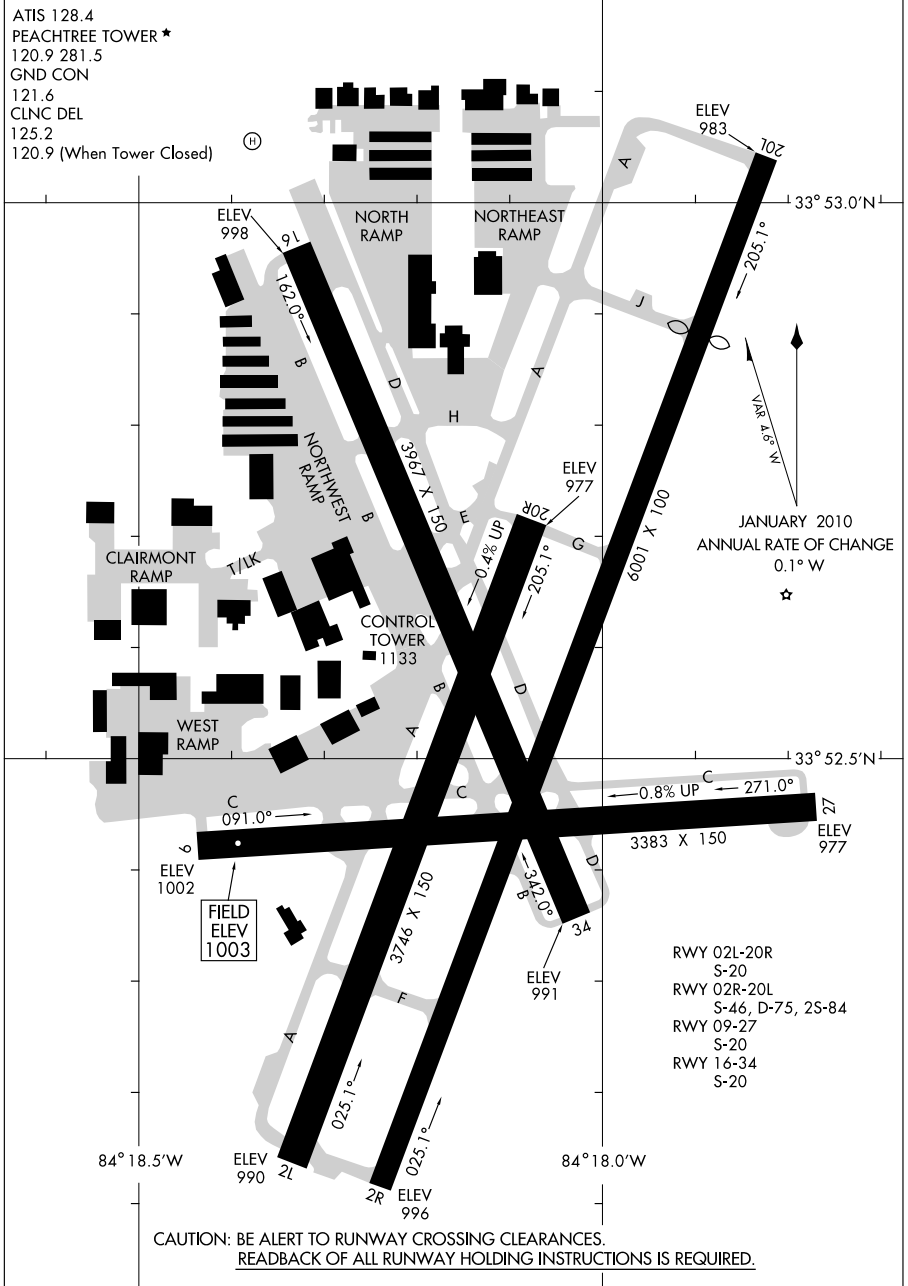
10210

AIRPORT DIAGRAM

AL-469 (FAA)

ATLANTA/DEKALB-PEACHTREE (PDK)

ATLANTA, GEORGIA



AIRPORT DIAGRAM

10210

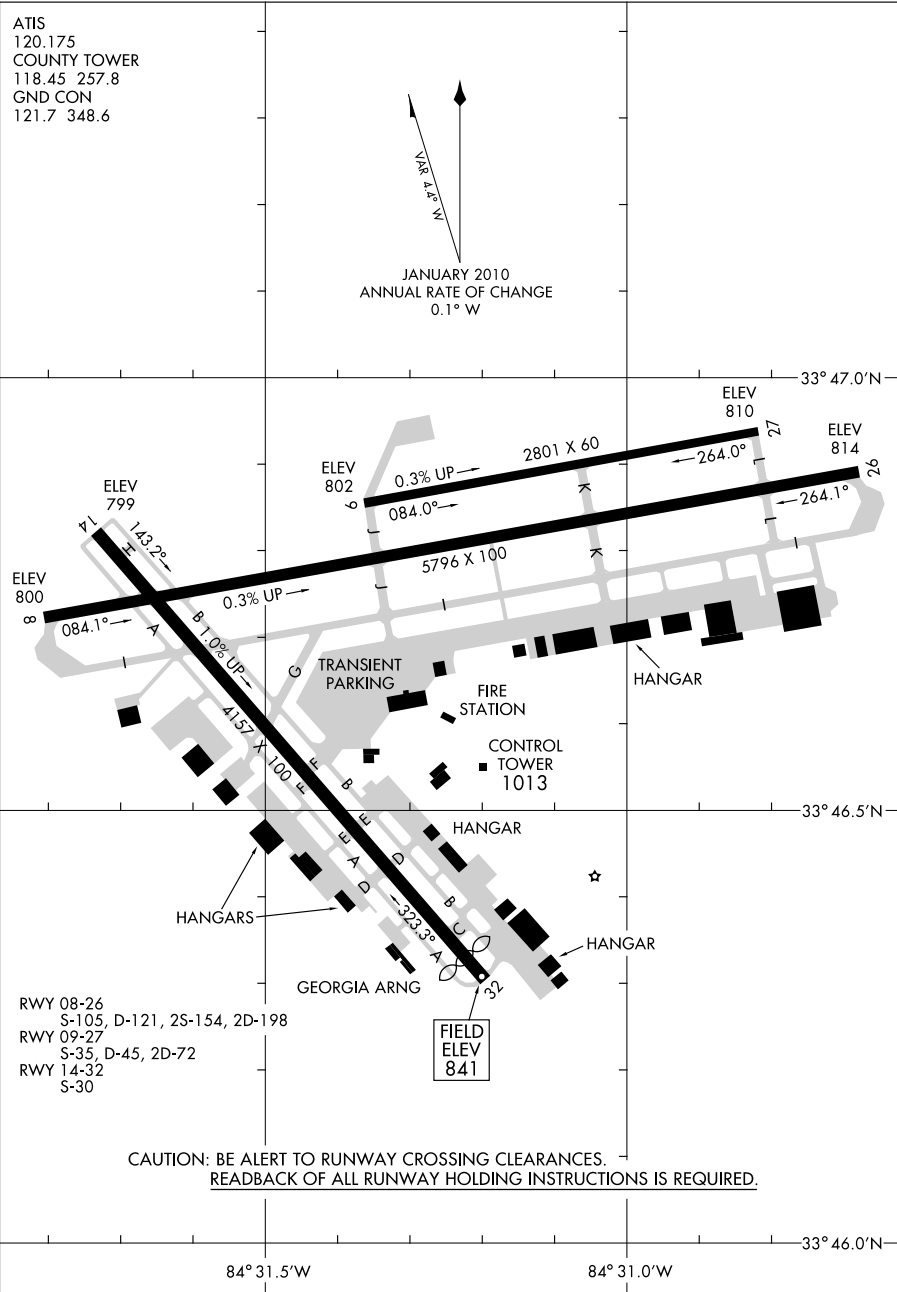
ATLANTA, GEORGIA

ATLANTA/DEKALB-PEACHTREE (PDK)

SE. 23 SEP 2010 to 18 NOV 2010

10210
AIRPORT DIAGRAM

ATLANTA/FULTON COUNTY AIRPORT-BROWN FIELD (F'TY)
AL-745 (FAA)
ATLANTA, GEORGIA



AIRPORT DIAGRAM
10210

ATLANTA, GEORGIA
ATLANTA/FULTON COUNTY AIRPORT-BROWN FIELD (F'TY)

SE. 23 SEP 2010 to 18 NOV 2010

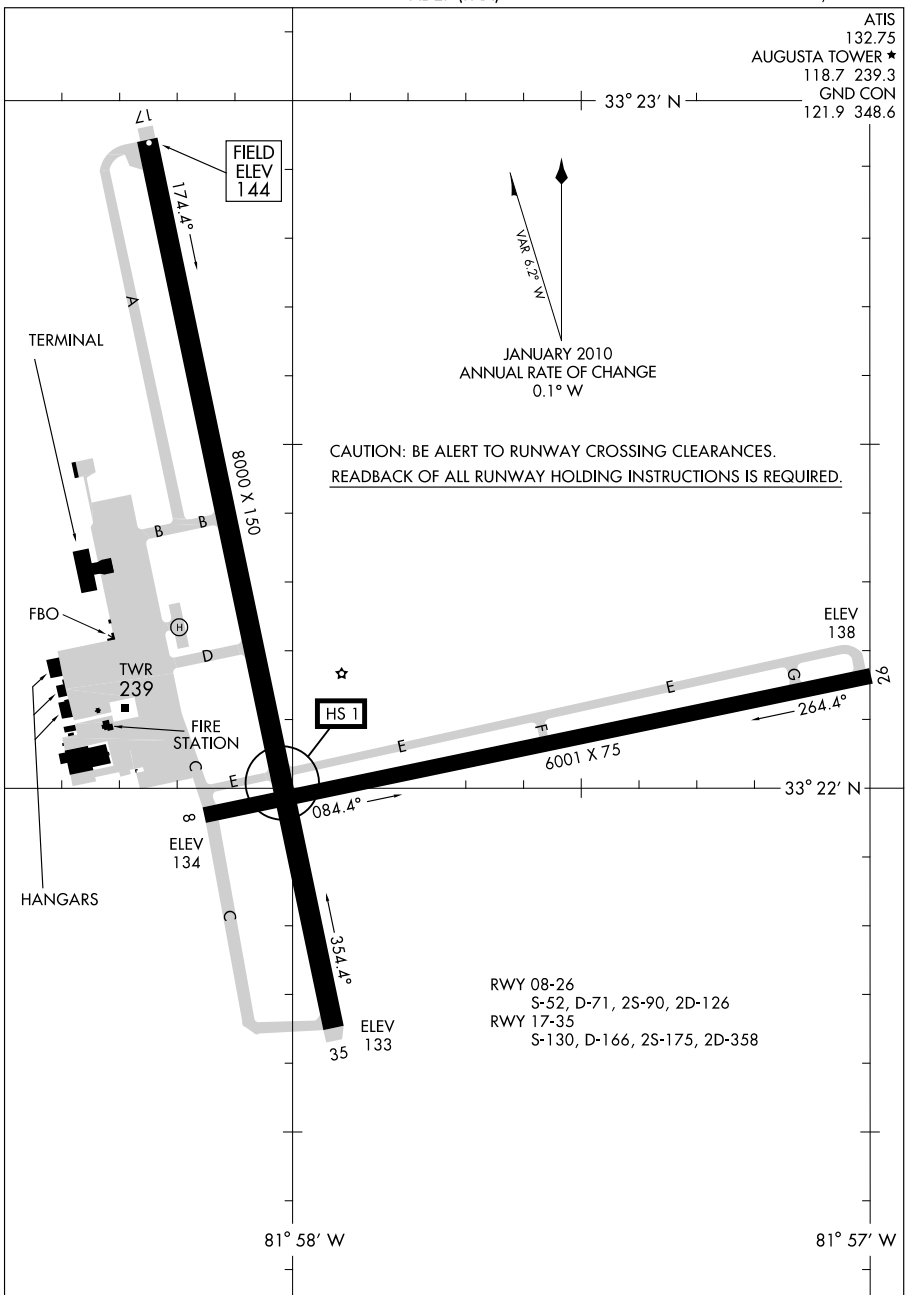
10266

AIRPORT DIAGRAM

AL-27 (FAA)

AUGUSTA RGNL AT BUSH FIELD (AGS)

AUGUSTA, GEORGIA



AIRPORT DIAGRAM

10266

AUGUSTA, GEORGIA

AUGUSTA RGNL AT BUSH FIELD (AGS)

SE. 23 SEP 2010 to 18 NOV 2010

BARTOW, FLORIDA

SE. 23 SEP 2010 to 18 NOV 2010

10098

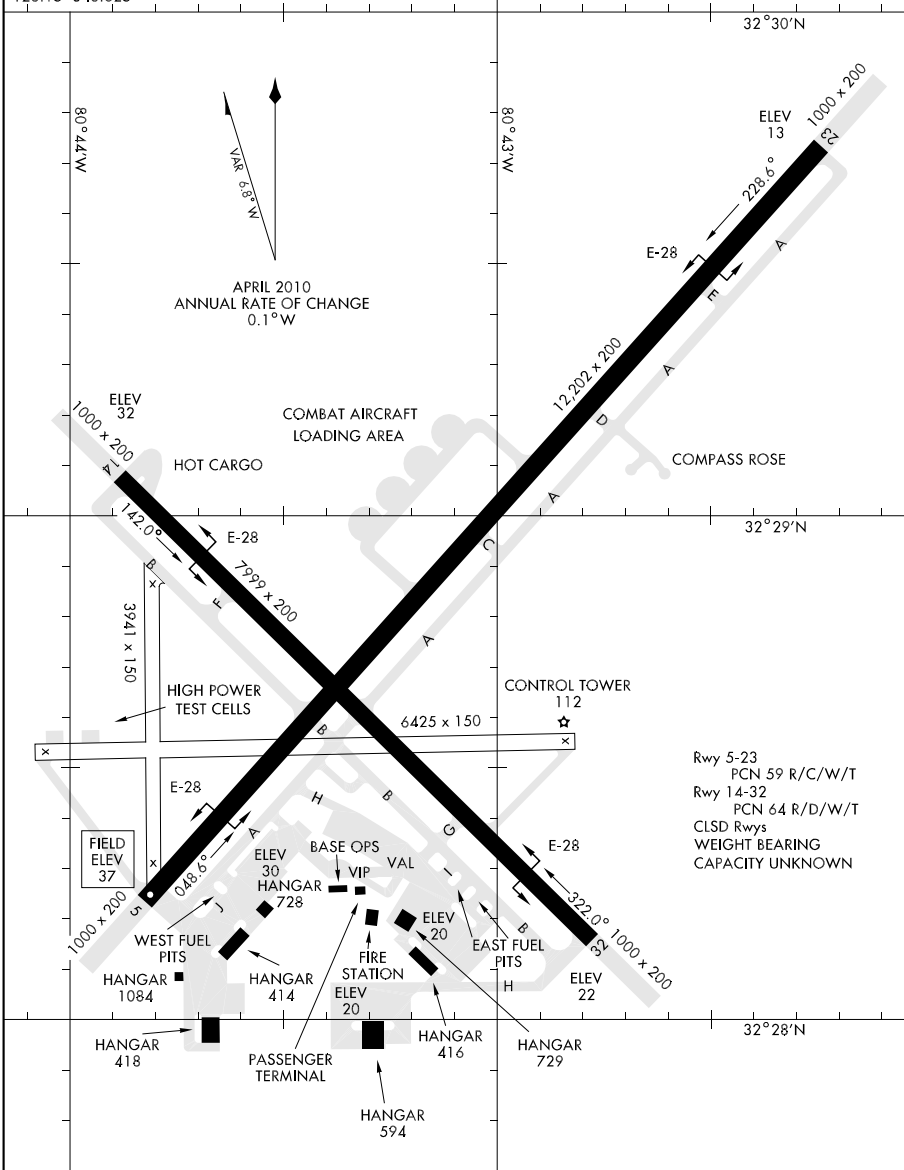
AIRPORT DIAGRAM

AFD-916 [USN]

BEAUFORT MCAS (MERRITT FIELD) (KNBC)

BEAUFORT, SOUTH CAROLINA

ATIS ★ 256.15
 BEAUFORT TOWER ★
 119.05 342.875
 GND CON
 128.15 348.625
 CLNC DEL
 128.15 348.625



AIRPORT DIAGRAM

BEAUFORT, SOUTH CAROLINA

BEAUFORT MCAS (MERRITT FIELD) (KNBC)

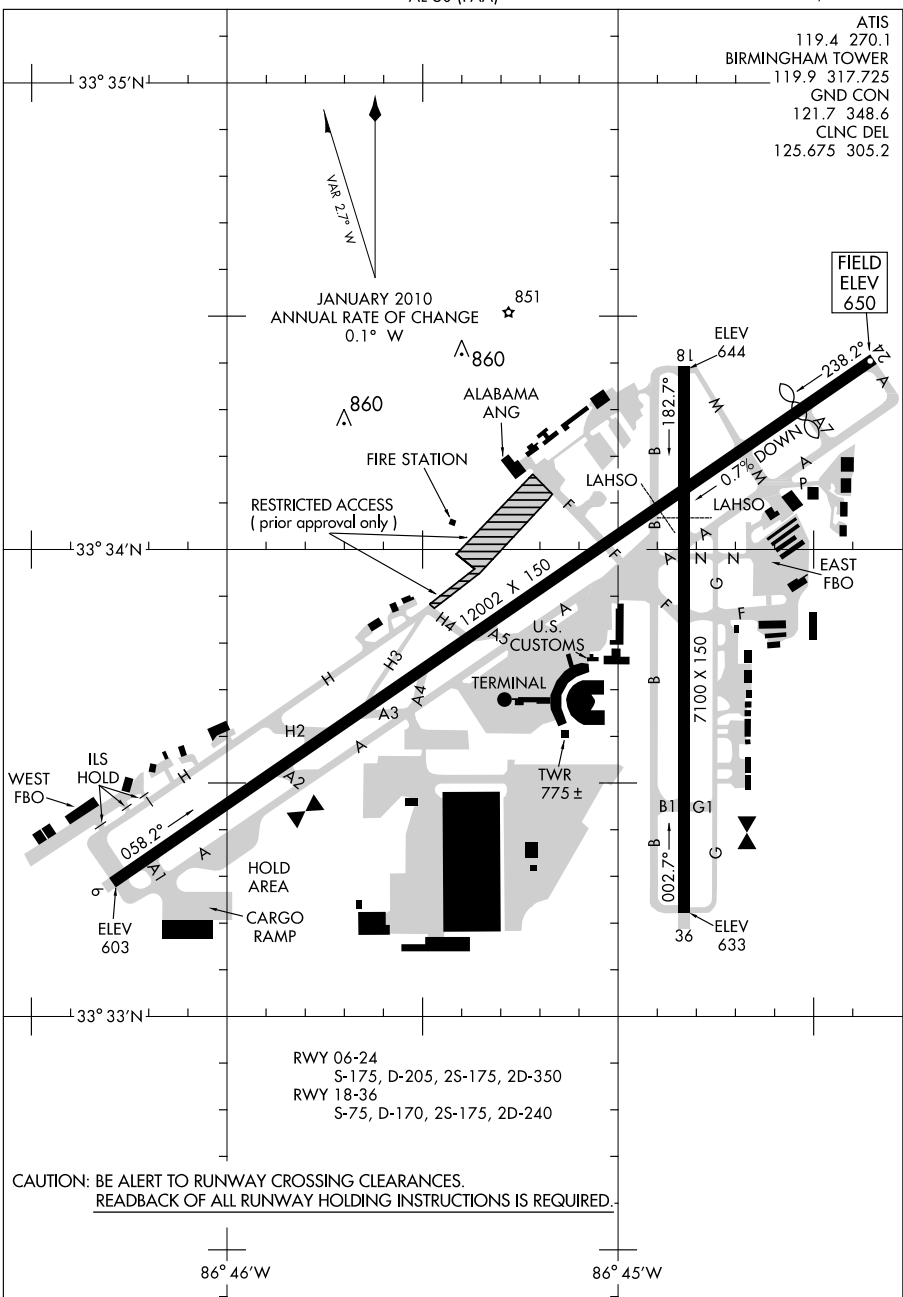
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-50 (FAA)

BIRMINGHAM-SHUTTLESWORTH INTL (BHM)
BIRMINGHAM, ALABAMA



AIRPORT DIAGRAM

BIRMINGHAM, ALABAMA
BIRMINGHAM-SHUTTLESWORTH INTL (BHM)

10210

SE, 23 SEP 2010 to 18 NOV 2010

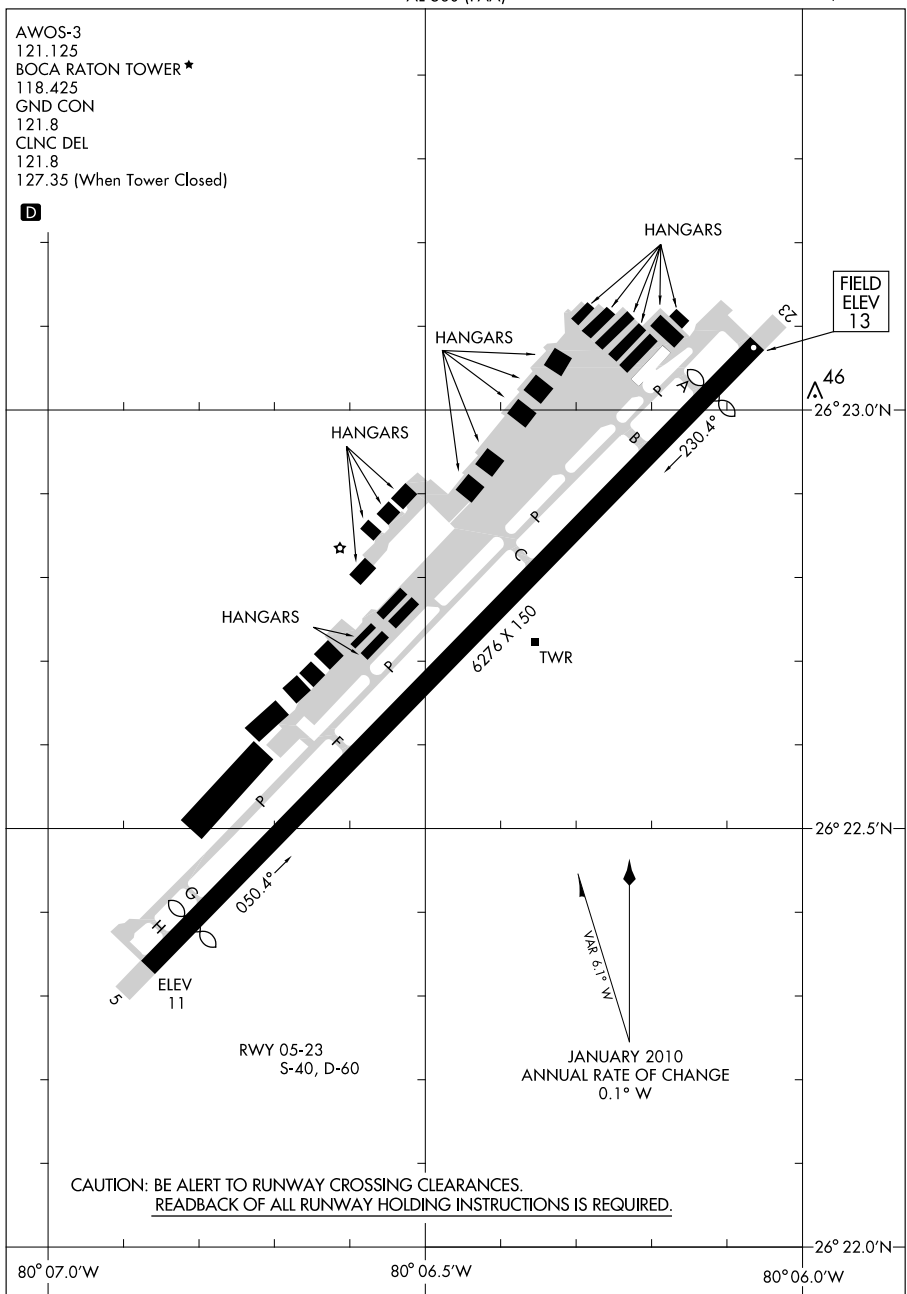
AIRPORT DIAGRAM

AL-560 (FAA)

BOCA RATON (BCT)
BOCA RATON, FLORIDA

AWOS-3
121.125
BOCA RATON TOWER ★
118.425
GND CON
121.8
CLNC DEL
121.8
127.35 (When Tower Closed)

D



AIRPORT DIAGRAM

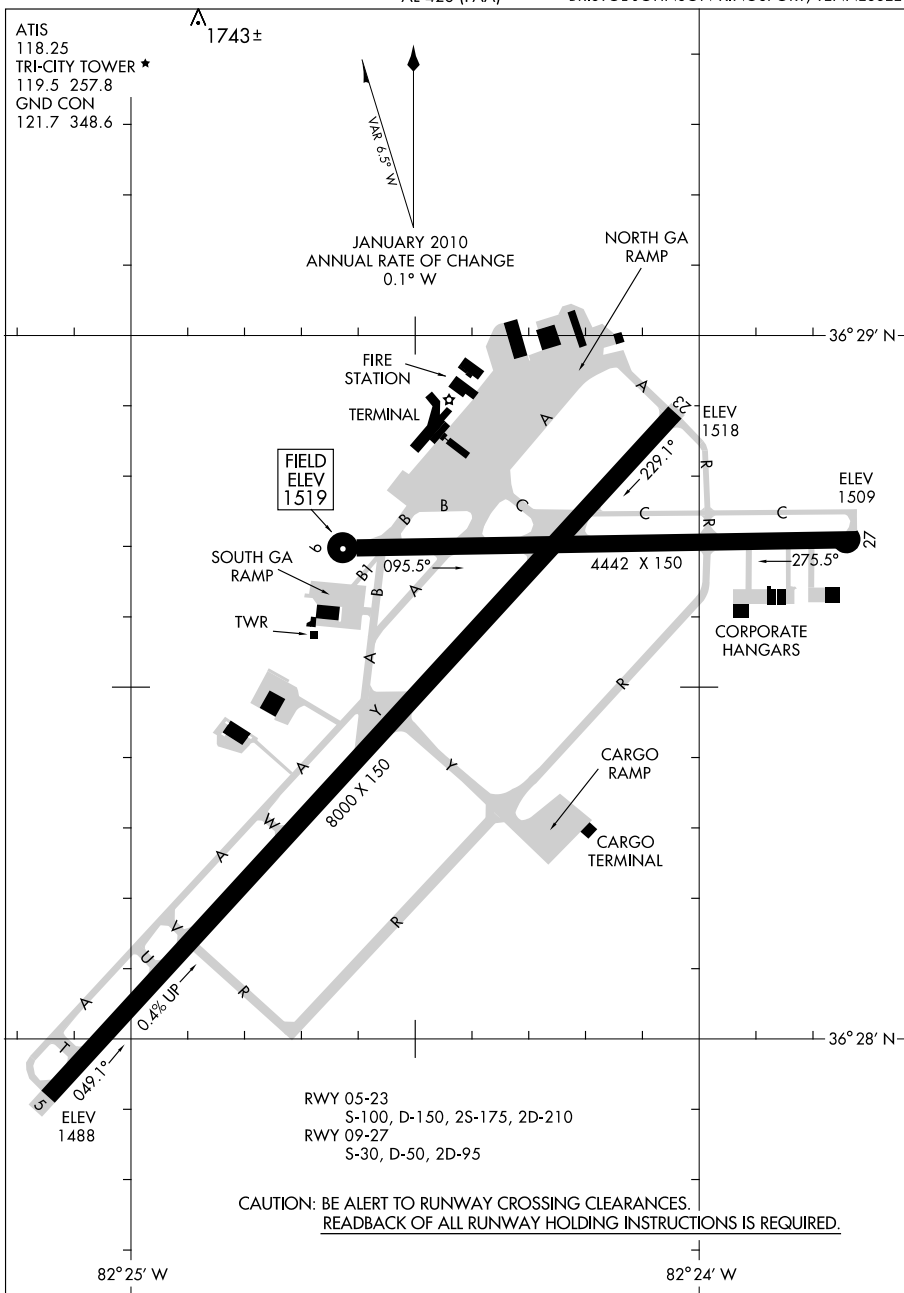
BOCA RATON, FLORIDA
BOCA RATON (BCT)

10210

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

BRISTOL/TRI-CITIES RGNL TN/VA (TRI)
BRISTOL-JOHNSON-KINGSPORT, TENNESSEE

AIRPORT DIAGRAM

BRISTOL-JOHNSON-KINGSPORT, TENNESSEE
BRISTOL/TRI-CITIES RGNL TN/VA (TRI)

10210

SE. 23 SEP 2010 to 18 NOV 2010

10210

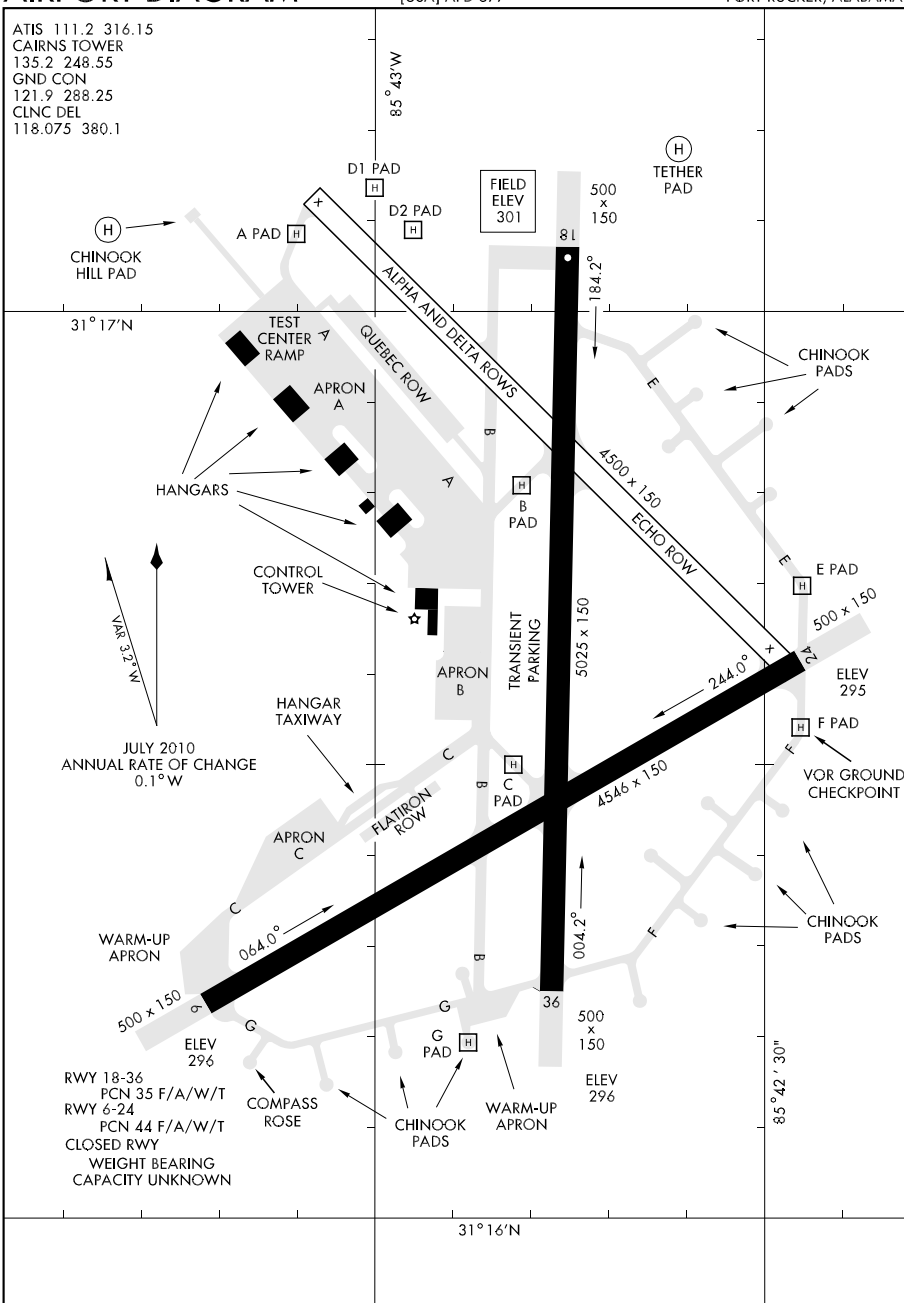
AIRPORT DIAGRAM

[USA] AFD-577

CAIRNS AAF (KOZR)

FORT RUCKER, ALABAMA

ATIS 111.2 316.15
 CAIRNS TOWER
 135.2 248.55
 GND CON
 121.9 288.25
 CLNC DEL
 118.075 380.1



AIRPORT DIAGRAM

FORT RUCKER, ALABAMA

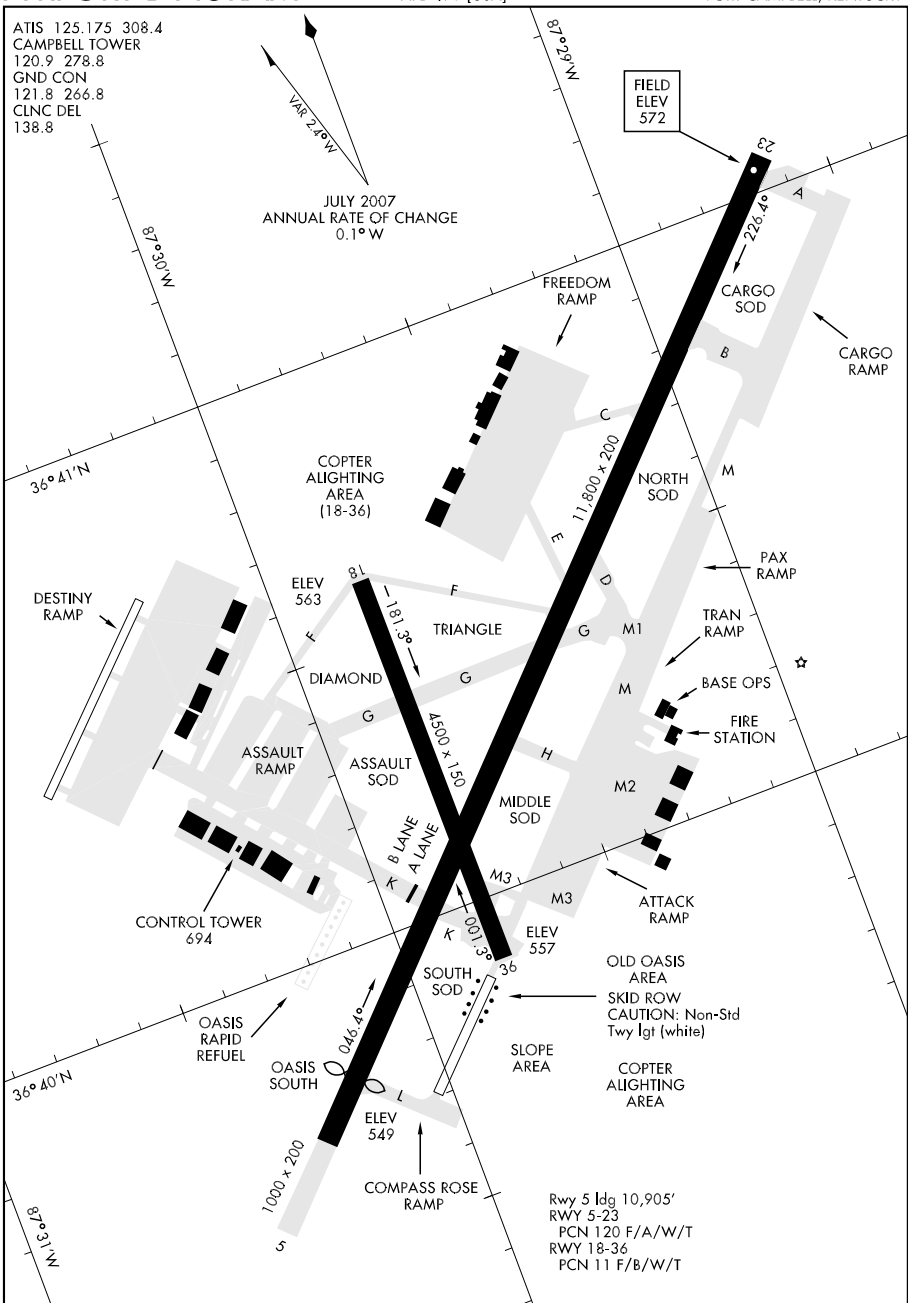
CAIRNS AAF (KOZR)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

FORT CAMPBELL, KENTUCKY

AFD-679 [USA]

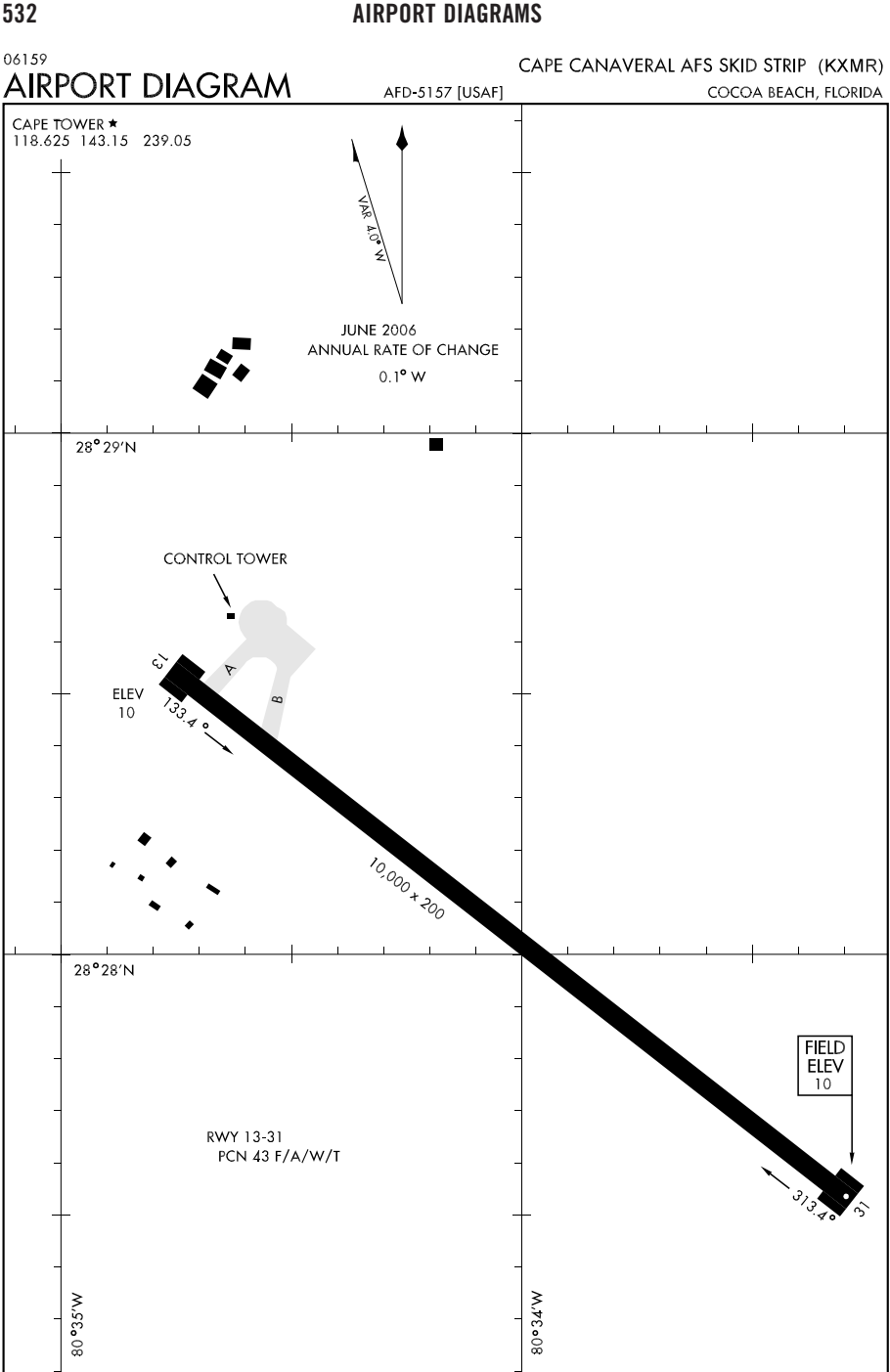


AIRPORT DIAGRAM

WGS-84 DATUM

CAMPBELL AAF (KHOP)

SE, 23 SEP 2010 to 18 NOV 2010



AIRPORT DIAGRAM

COCOA BEACH, FLORIDA
CAPE CANAVERAL AFS SKID STRIP (KXMR)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-76 (FAA)



CHARLESTON, SOUTH CAROLINA
CHARLESTON AFB/INTL (CHS)

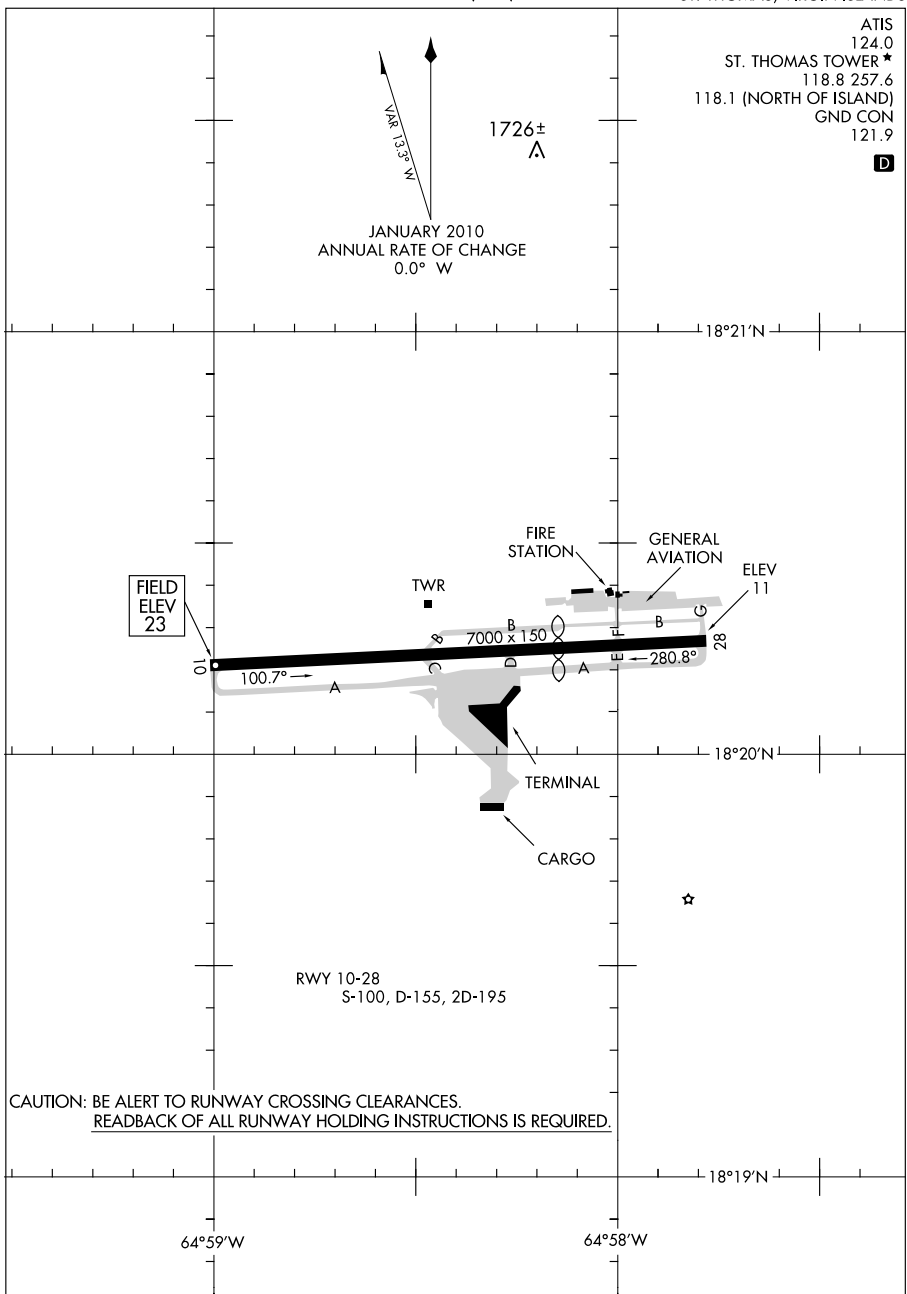
10266

SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

CHARLOTTE AMALIE/ CYRIL E KING (STT)(TIST)
AL-5005 (FAA) ST. THOMAS, VIRGIN ISLANDS



AIRPORT DIAGRAM

10266

ST. THOMAS, VIRGIN ISLANDS
CHARLOTTE AMALIE/ CYRIL E KING (STT)(TIST)

SE. 23 SEP 2010 to 18 NOV 2010

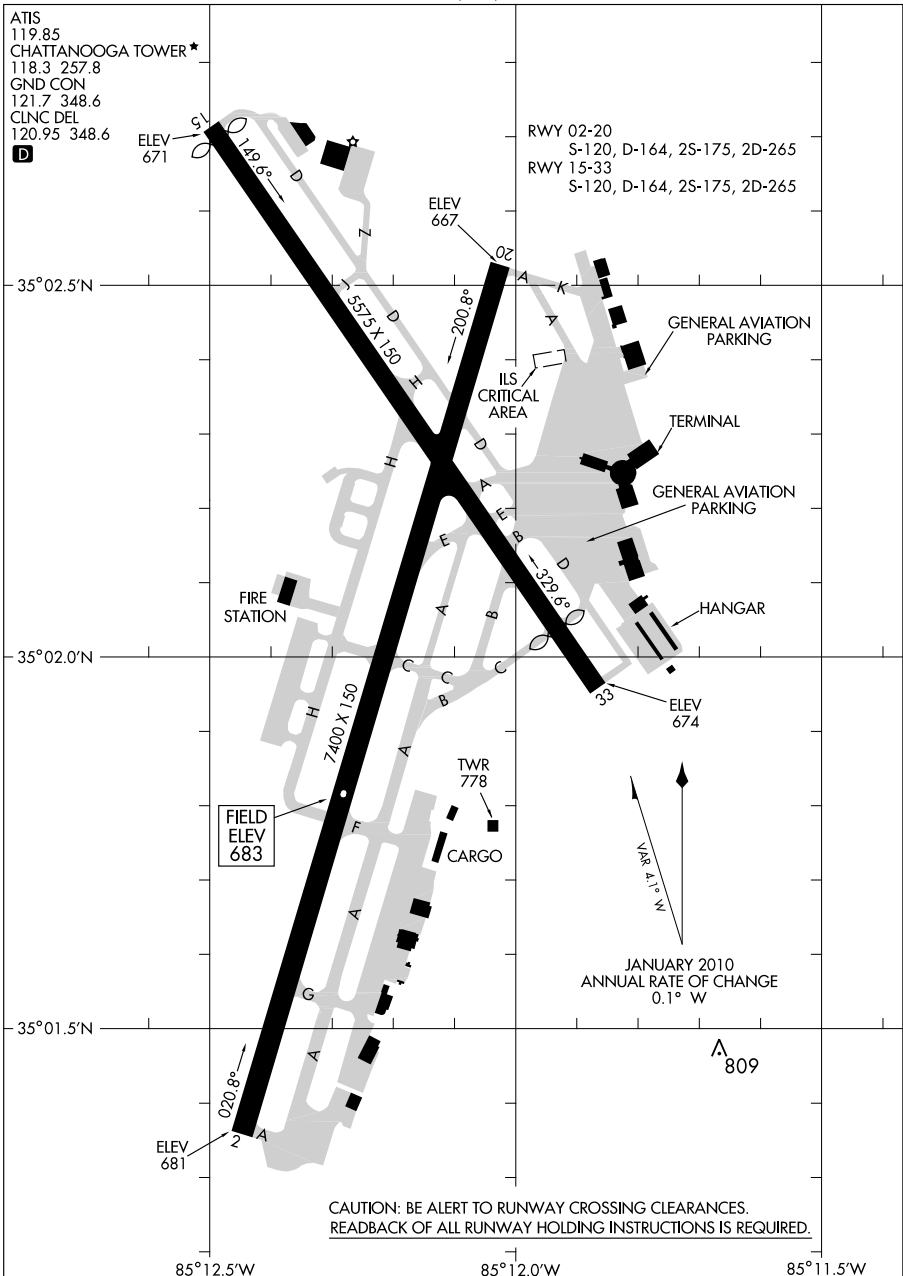
10210

AIRPORT DIAGRAM

AL-79 (FAA)

CHATTANOOGA/LOVELL FIELD (CHA)

CHATTANOOGA, TENNESSEE



AIRPORT DIAGRAM

10210

CHATTANOOGA, TENNESSEE

CHATTANOOGA/LOVELL FIELD (CHA)

SE. 23 SEP 2010 to 18 NOV 2010

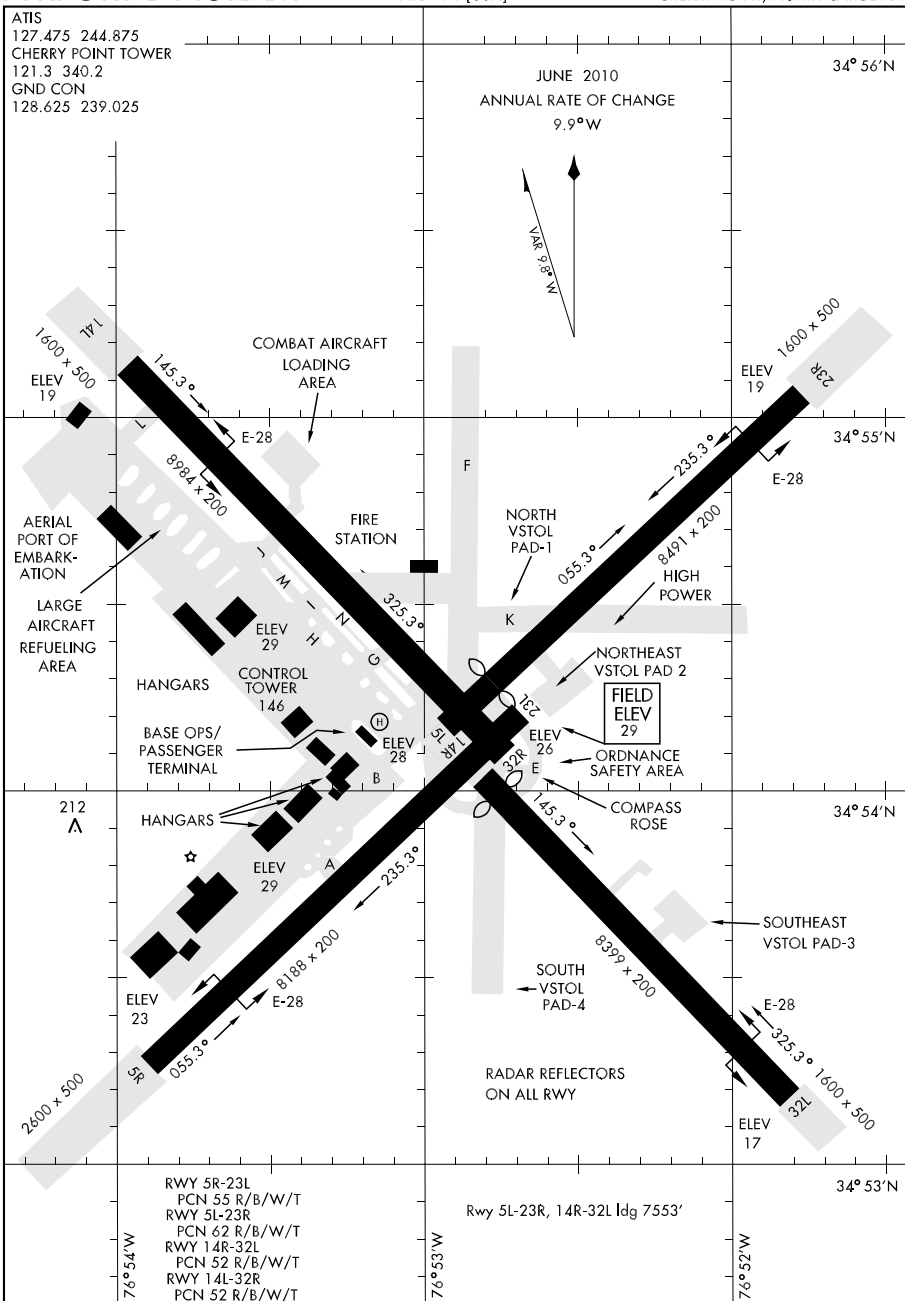
10154

AIRPORT DIAGRAM

AFD-471 [USN]

CHERRY POINT MCAS (KNKT)

CHERRY POINT, NORTH CAROLINA



AIRPORT DIAGRAM

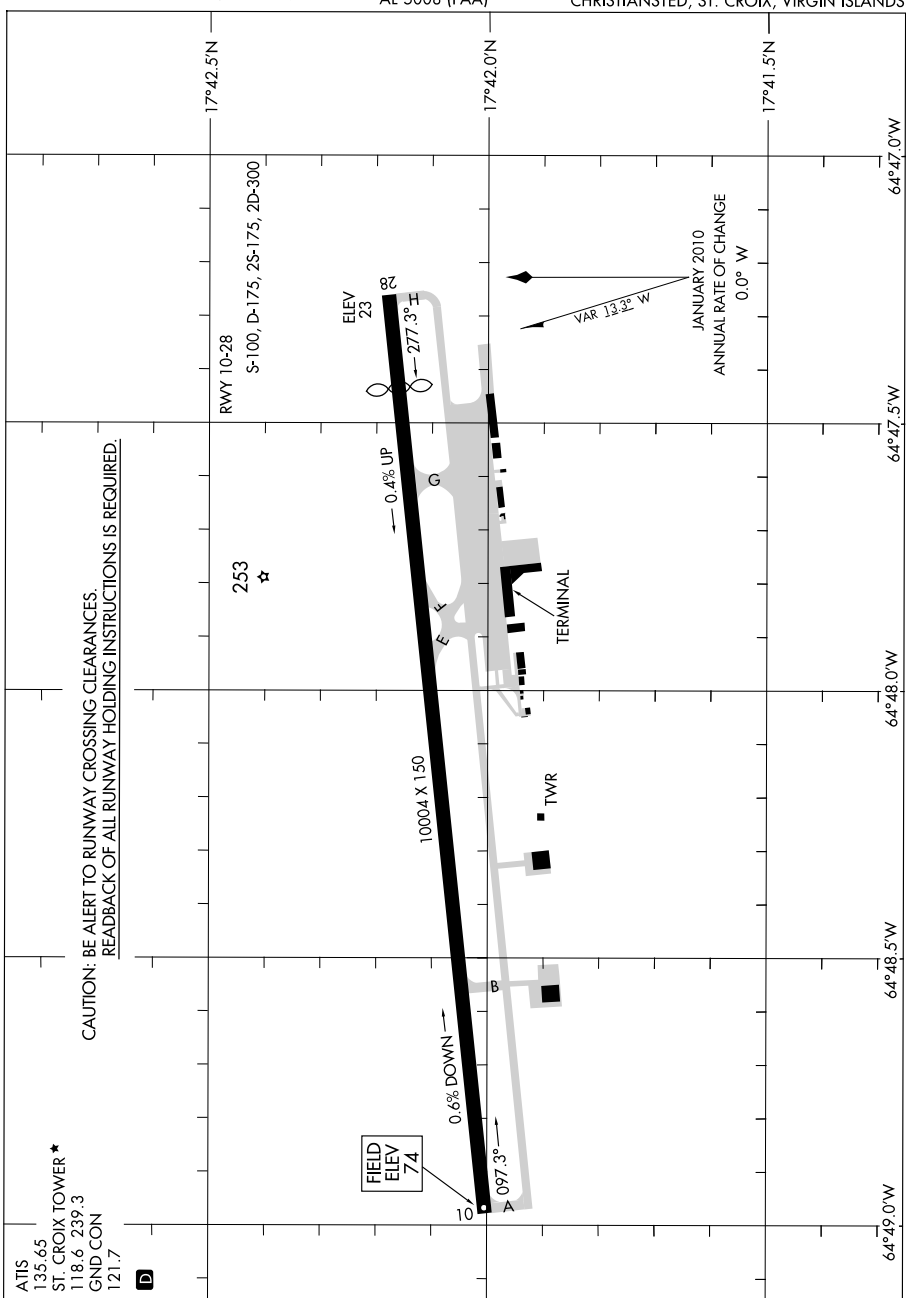
CHERRY POINT, NORTH CAROLINA

CHERRY POINT MCAS (KNKT)

SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

CHRISTIANSTED, ST. CROIX/HENRY E ROHLSSEN (STX)(TISX)
AL-5008 (FAA) CHRISTIANSTED, ST. CROIX, VIRGIN ISLANDS

AIRPORT DIAGRAM

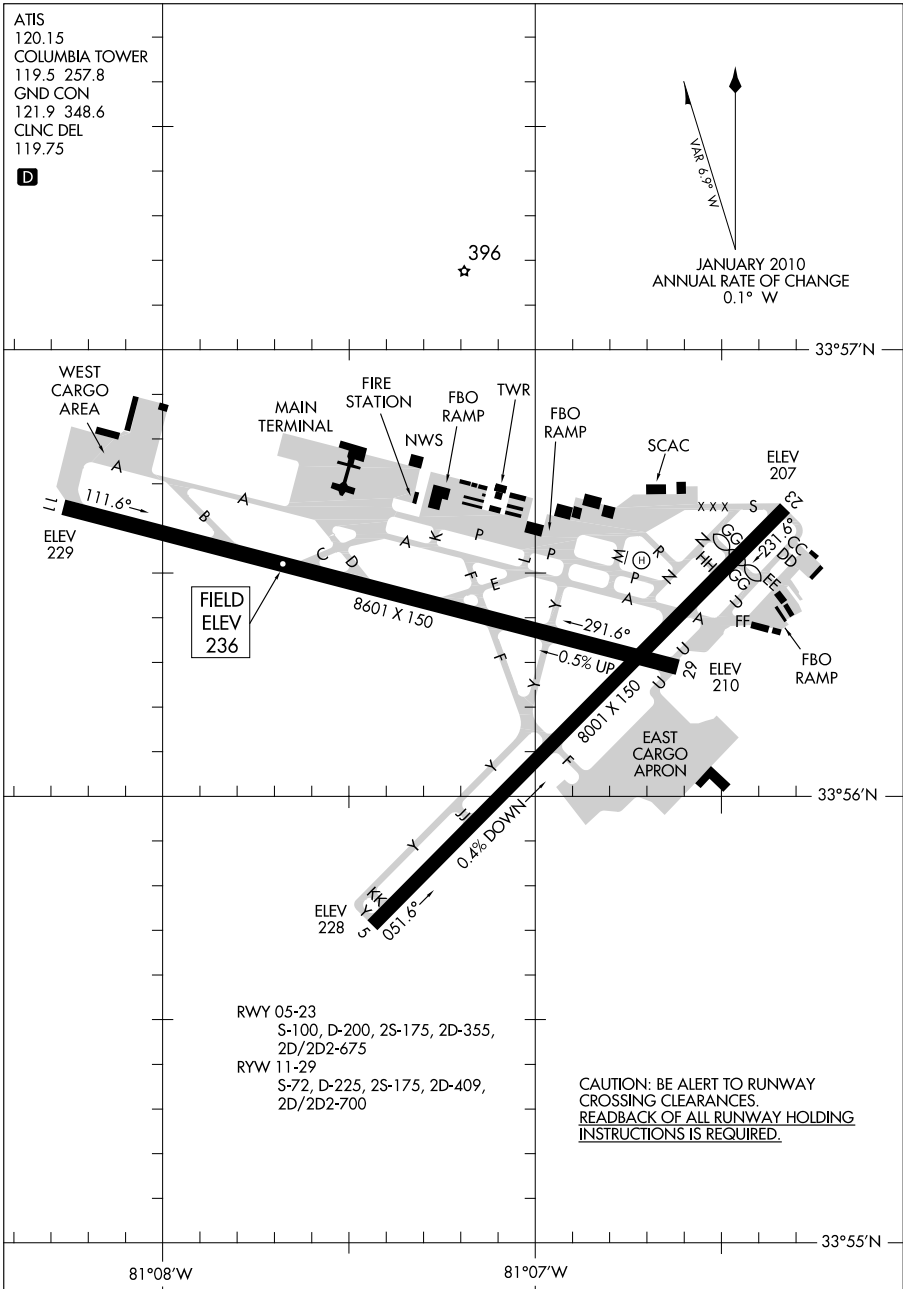
CHRISTIANSTED, ST. CROIX/HENRY E ROHLSSEN (STX)(TISX)
CHRISTIANSTED, ST. CROIX, VIRGIN ISLANDS

10266

10266

AIRPORT DIAGRAM

AL-89 (FAA)

COLUMBIA METROPOLITAN (CAE)
COLUMBIA, SOUTH CAROLINA

AIRPORT DIAGRAM

10266

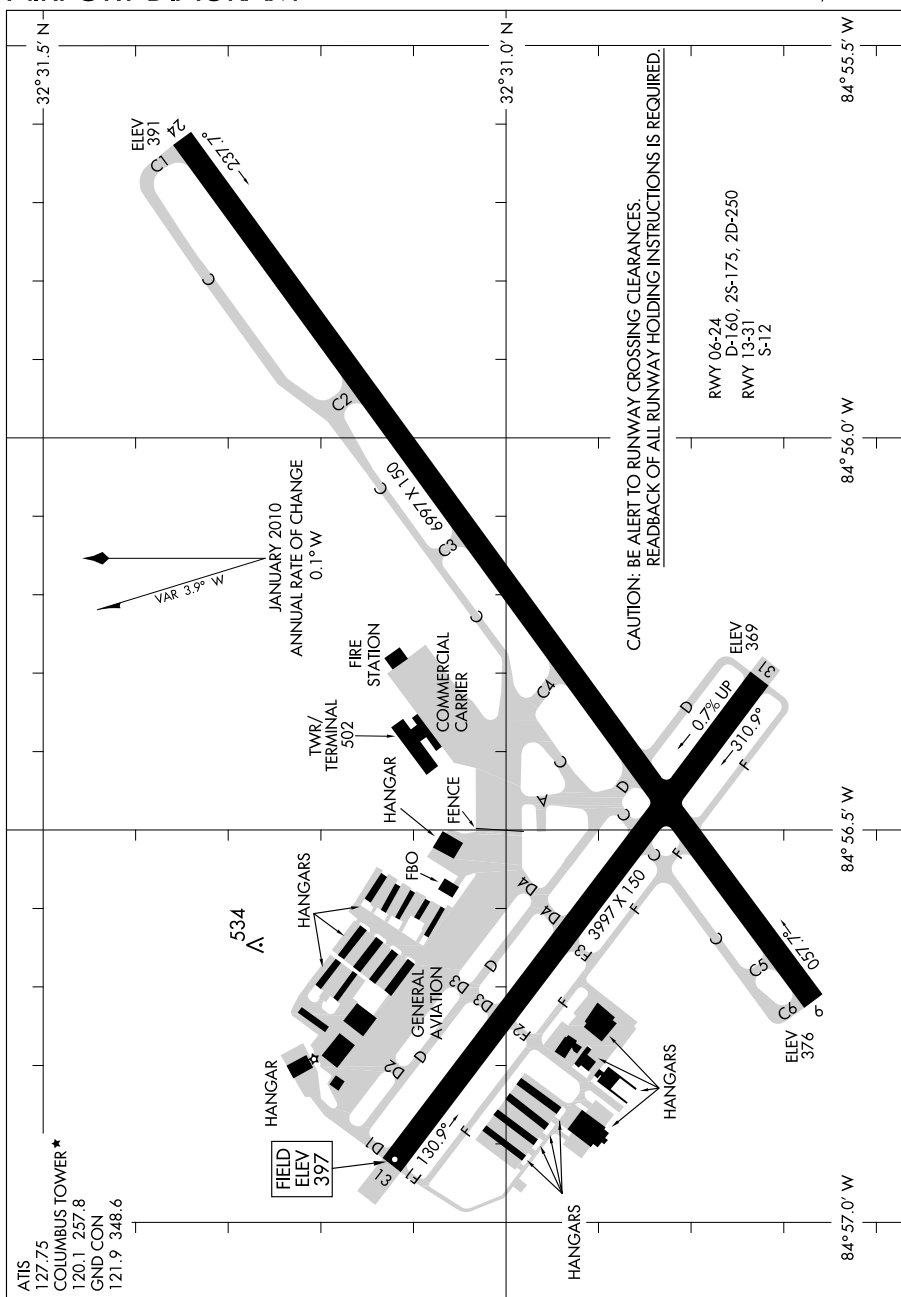
COLUMBIA, SOUTH CAROLINA
COLUMBIA METROPOLITAN (CAE)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-636 (FAA)

COLUMBUS METROPOLITAN (CSG)
COLUMBUS, GEORGIA



AIRPORT DIAGRAM

COLUMBUS, GEORGIA
COLUMBUS METROPOLITAN (CSG)

SE, 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

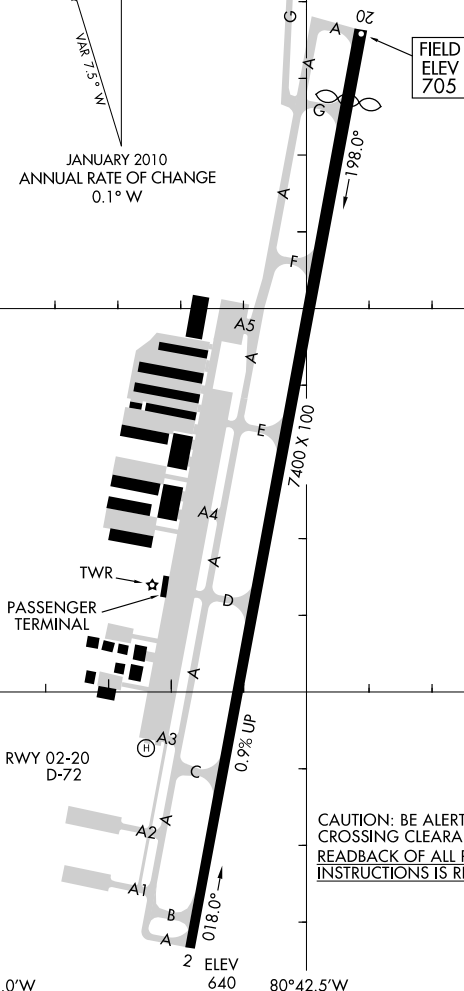
AL-9155 (FAA)

CONCORD RGNL (JQF)
CONCORD, NORTH CAROLINA

AWOS-3
133.675
CONCORD TOWER ★
134.65
GND CON
121.85
CLNC DEL
118.55
CHARLOTTE CLNC DEL
127.25 (When Tower Closed)

D

VAR 7.5° N
JANUARY 2010
ANNUAL RATE OF CHANGE
0.1° W



80°43.0'W

80°42.5'W

80°42.0'W

AIRPORT DIAGRAM

10210

CONCORD, NORTH CAROLINA
CONCORD RGNL (JQF)

SE. 23 SEP 2010 to 18 NOV 2010

09351

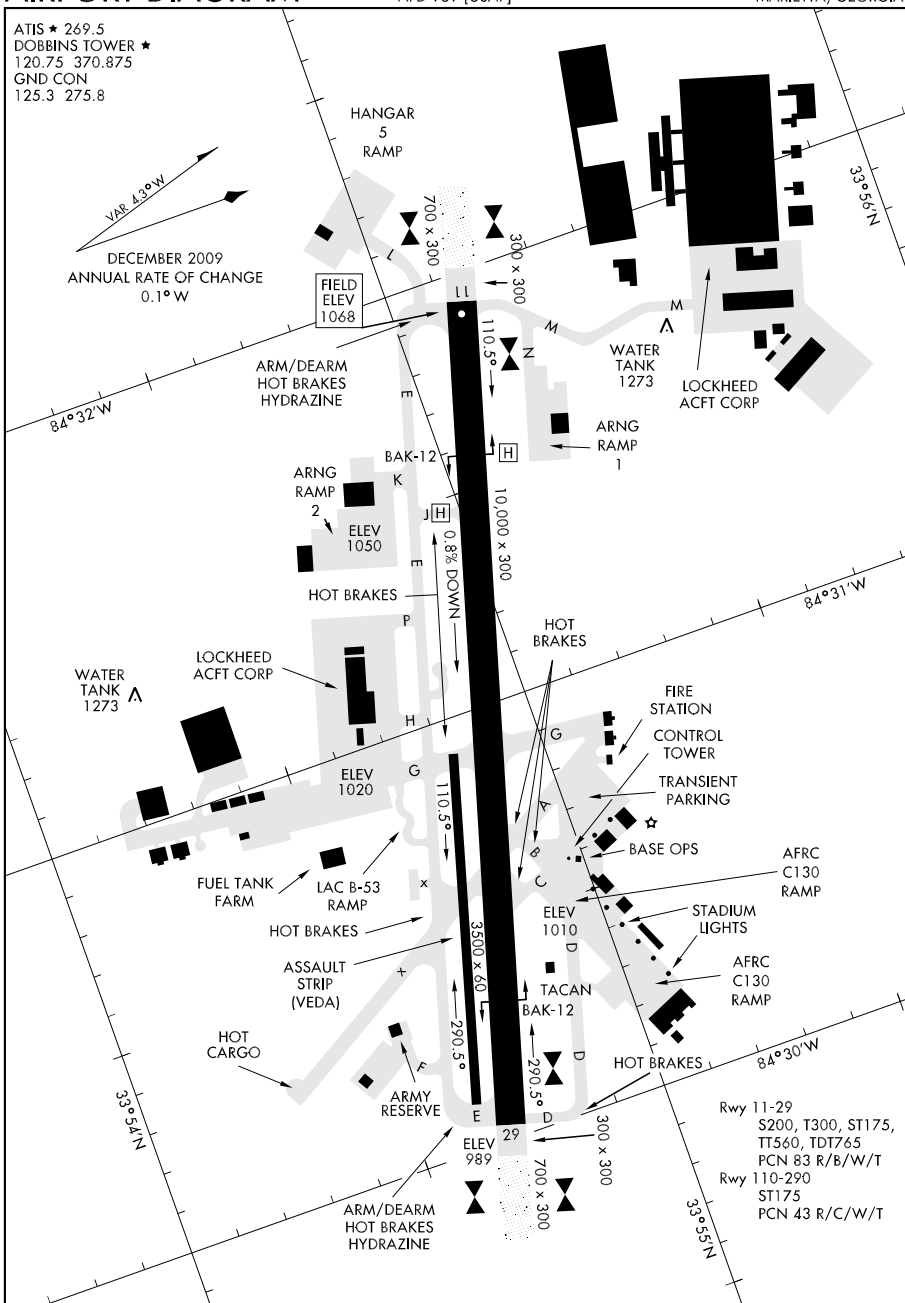
AIRPORT DIAGRAM

AFD-959 [USAF]

DOBBINS ARB (KMGE)

MARIETTA, GEORGIA

ATIS ★ 269.5
 DOBBINS TOWER ★
 120.75 370.875
 GND CON
 125.3 275.8



AIRPORT DIAGRAM

MARIETTA, GEORGIA

DOBBINS ARB (KMGE)

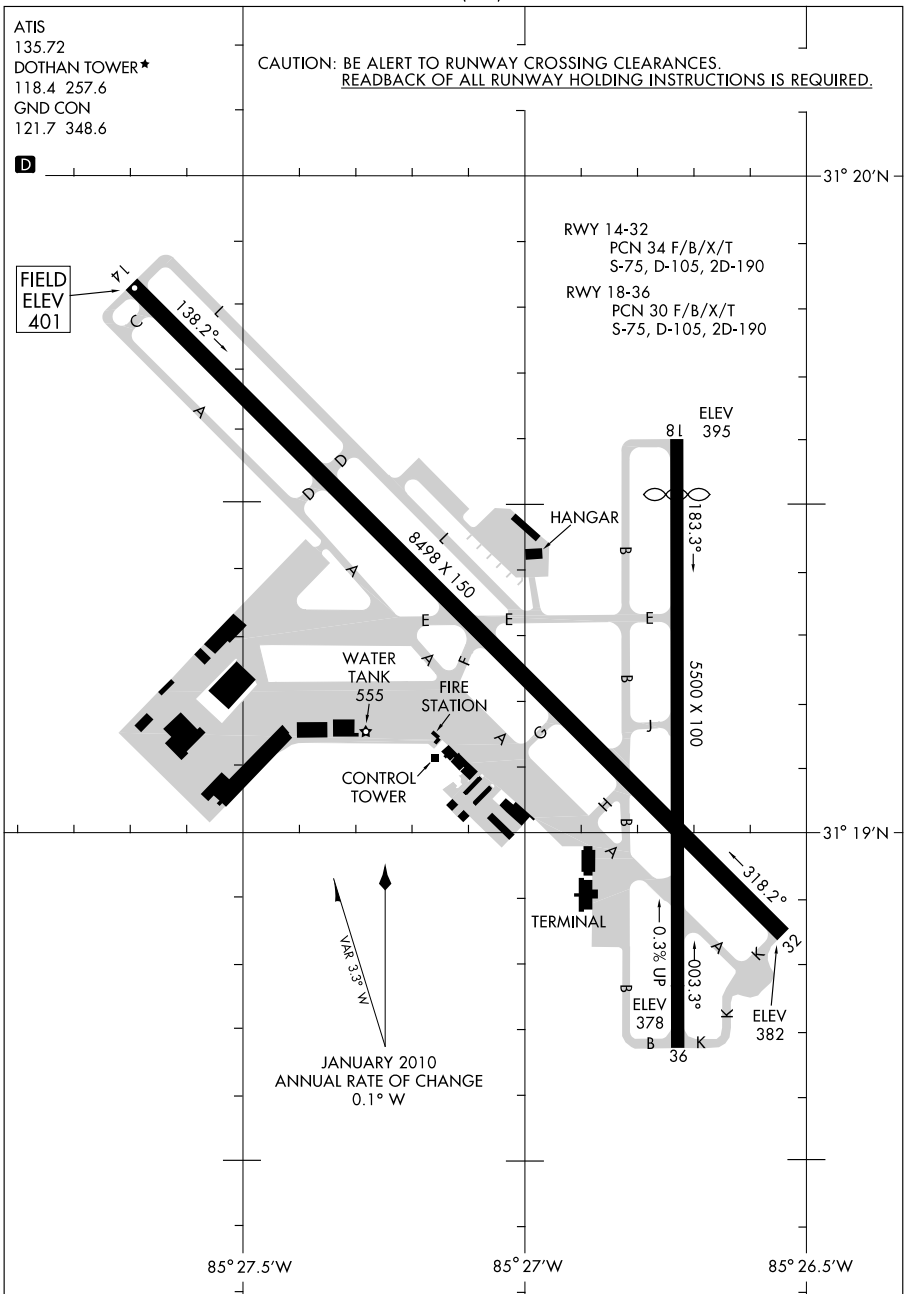
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-123 (FAA)

DOTHAN RGNL (DHN)
DOTHAN, ALABAMA



AIRPORT DIAGRAM

10210

DOTHAN, ALABAMA
DOTHAN RGNL (DHN)

10210

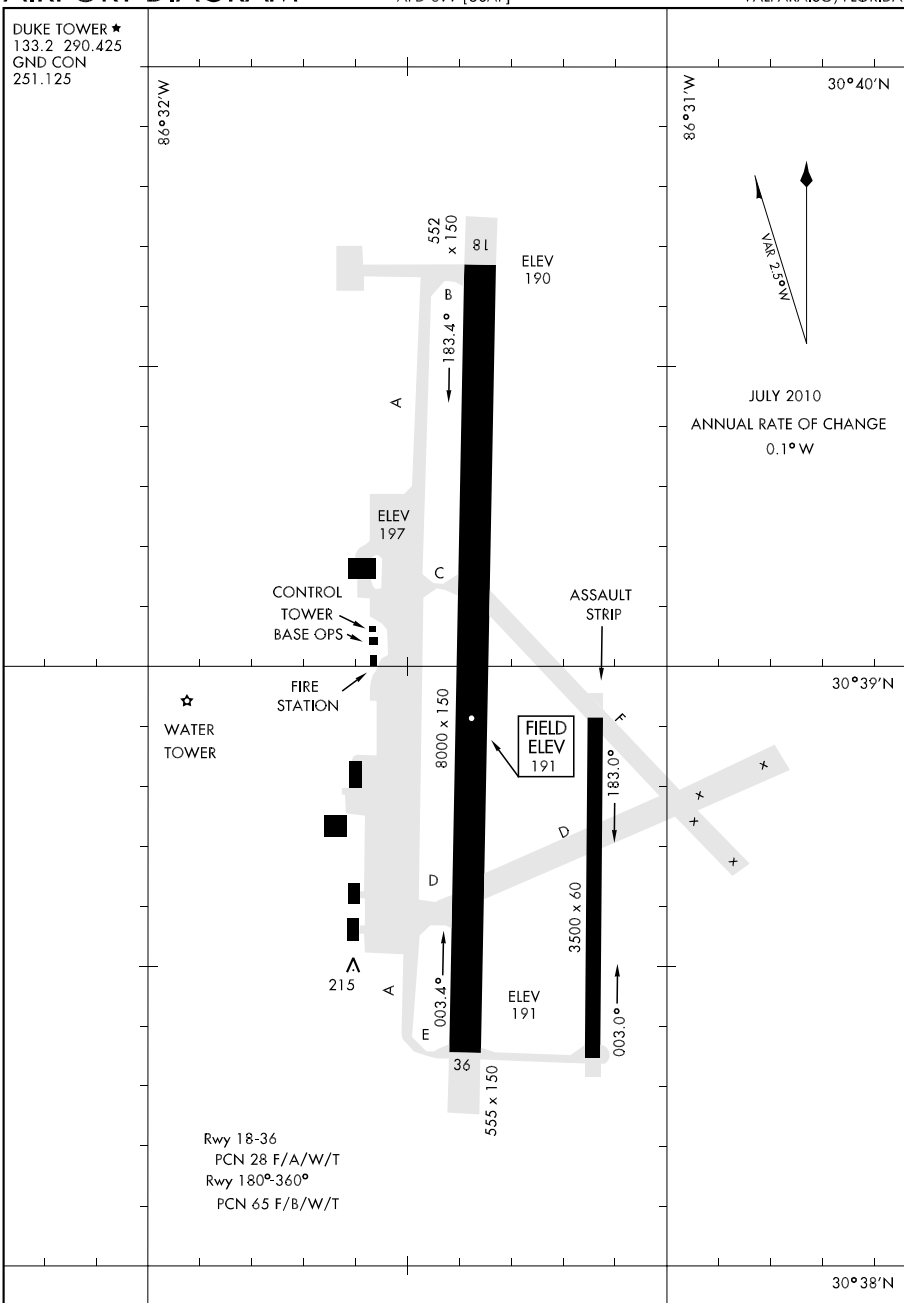
AIRPORT DIAGRAM

DUKE FLD (EGLIN AF AUX NR3) (KEGI)

AFD-699 [USAF]

VALPARAISO, FLORIDA

DUKE TOWER ★
133.2 290.425
GND CON
251.125



AIRPORT DIAGRAM

VALPARAISO, FLORIDA

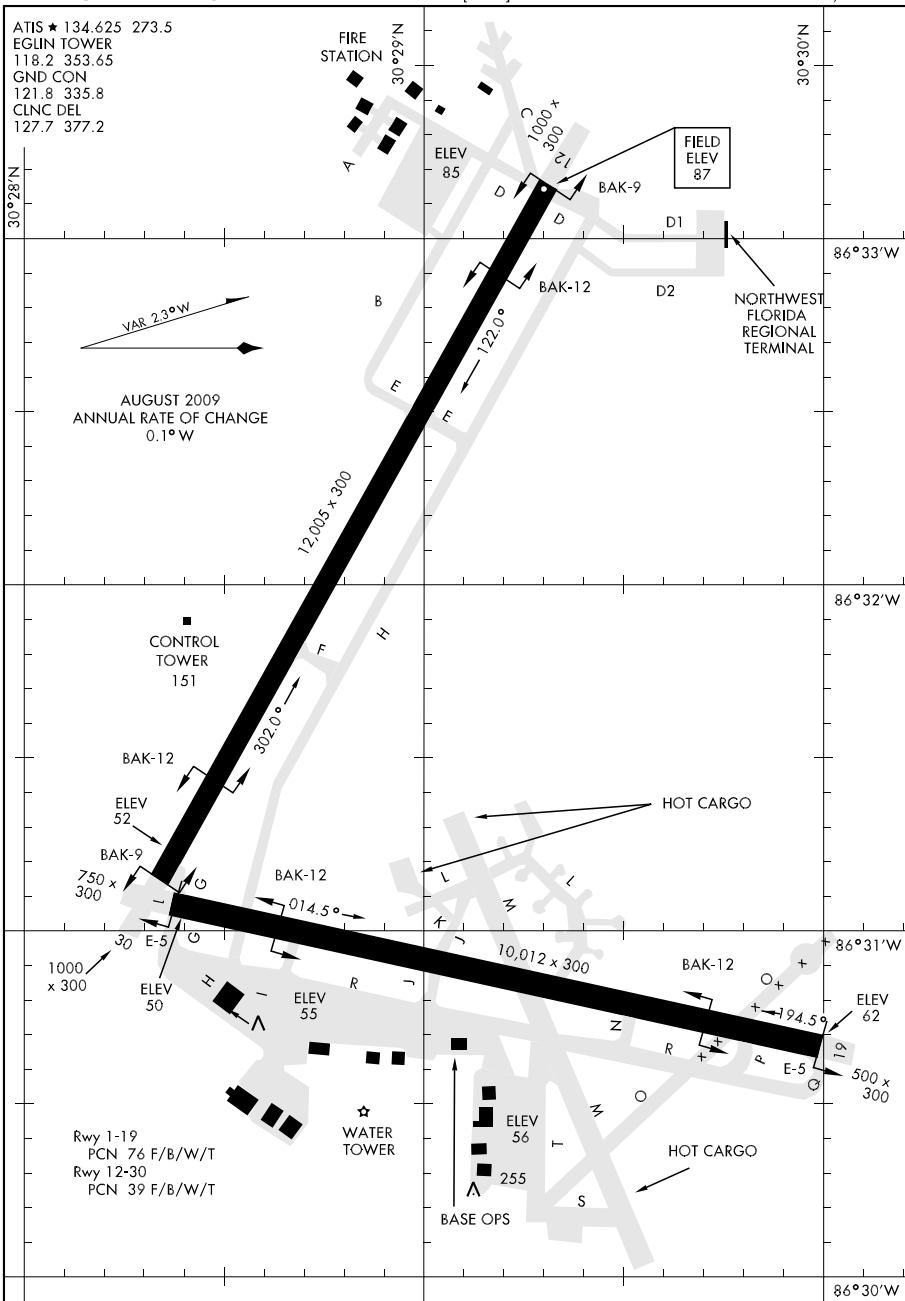
DUKE FLD (EGLIN AF AUX NR3) (KEGI)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

VALPARAISO, FLORIDA

AFD-436 [USAF]



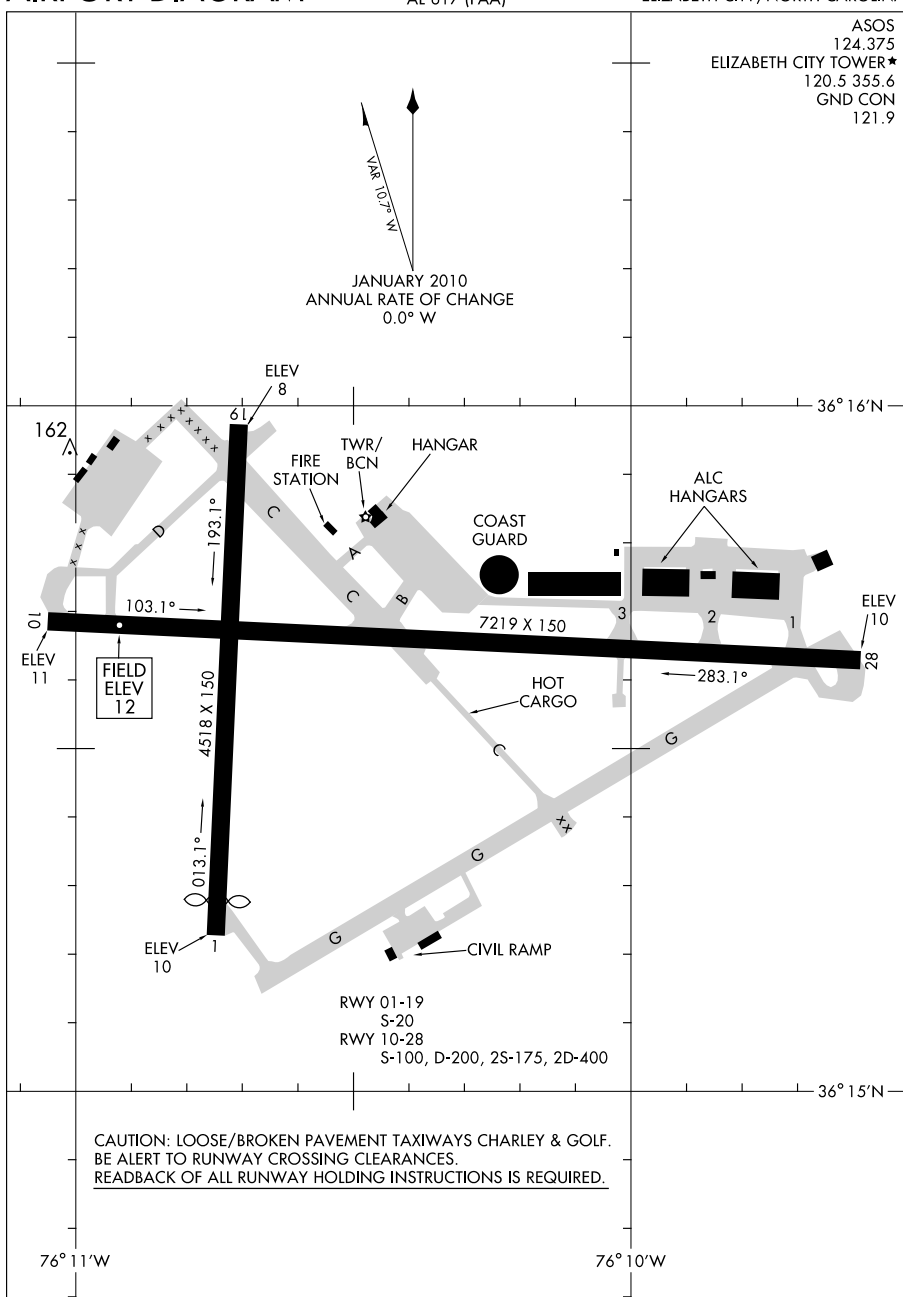
AIRPORT DIAGRAM

EGLIN AFB (KVPS)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

ELIZABETH CITY COAST GUARD AIR STATION/RGNL (E/C/G)
AL-617 (FAA) ELIZABETH CITY, NORTH CAROLINA



AIRPORT DIAGRAM

ELIZABETH CITY, NORTH CAROLINA
ELIZABETH CITY COAST GUARD AIR STATION/RGNL (E/C/G)

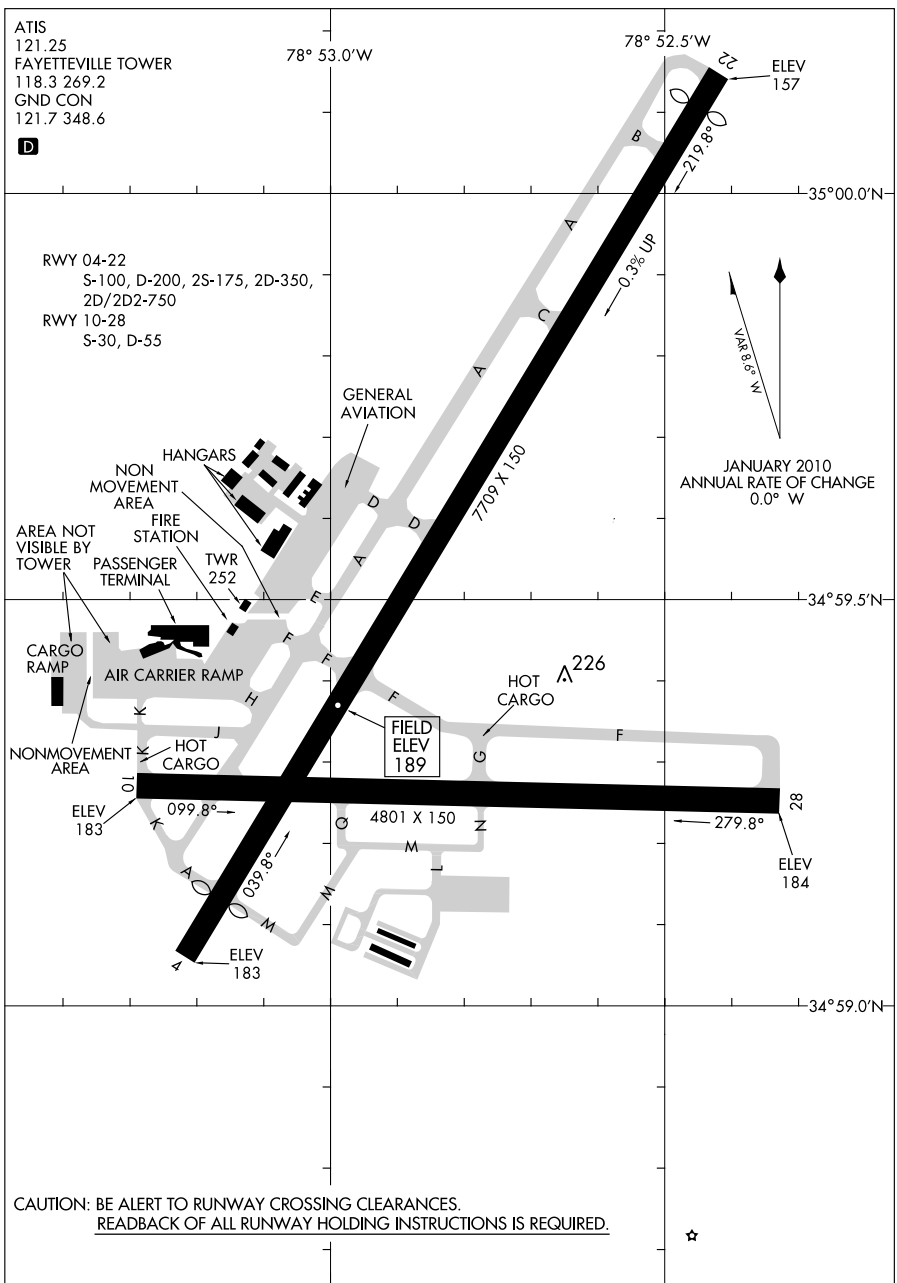
10210

AIRPORT DIAGRAM

FAYETTEVILLE RGNL/GRANNIS FIELD (FAY)

AL-690 (FAA)

FAYETTEVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

FAYETTEVILLE, NORTH CAROLINA

FAYETTEVILLE RGNL/GRANNIS FIELD (FAY)

10210

SE. 23 SEP 2010 to 18 NOV 2010

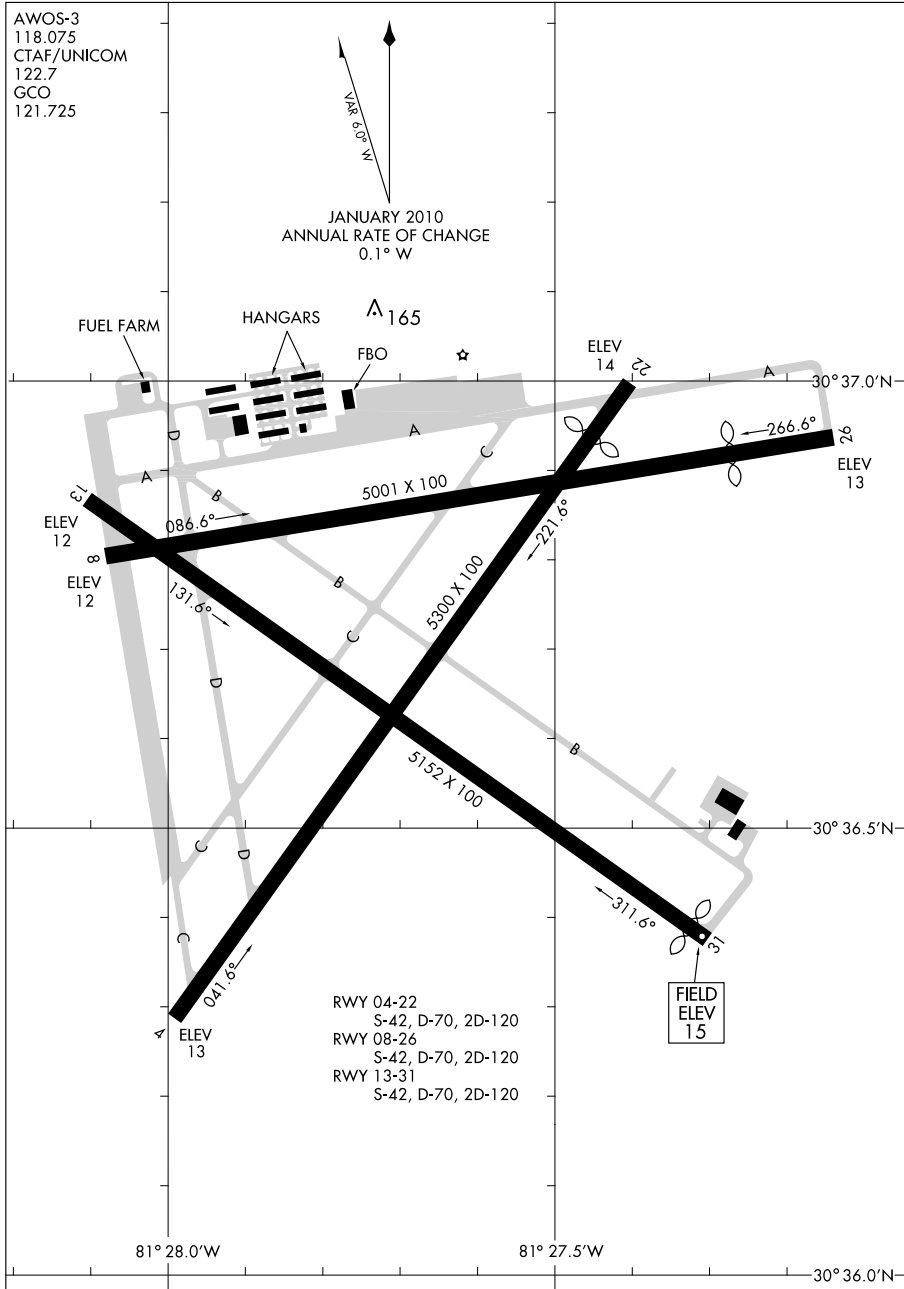
10210

AIRPORT DIAGRAM

AL-6597 (FAA)

FERNANDINA BEACH MUNI (FHB)

FERNANDINA BEACH, FLORIDA



AIRPORT DIAGRAM

10210

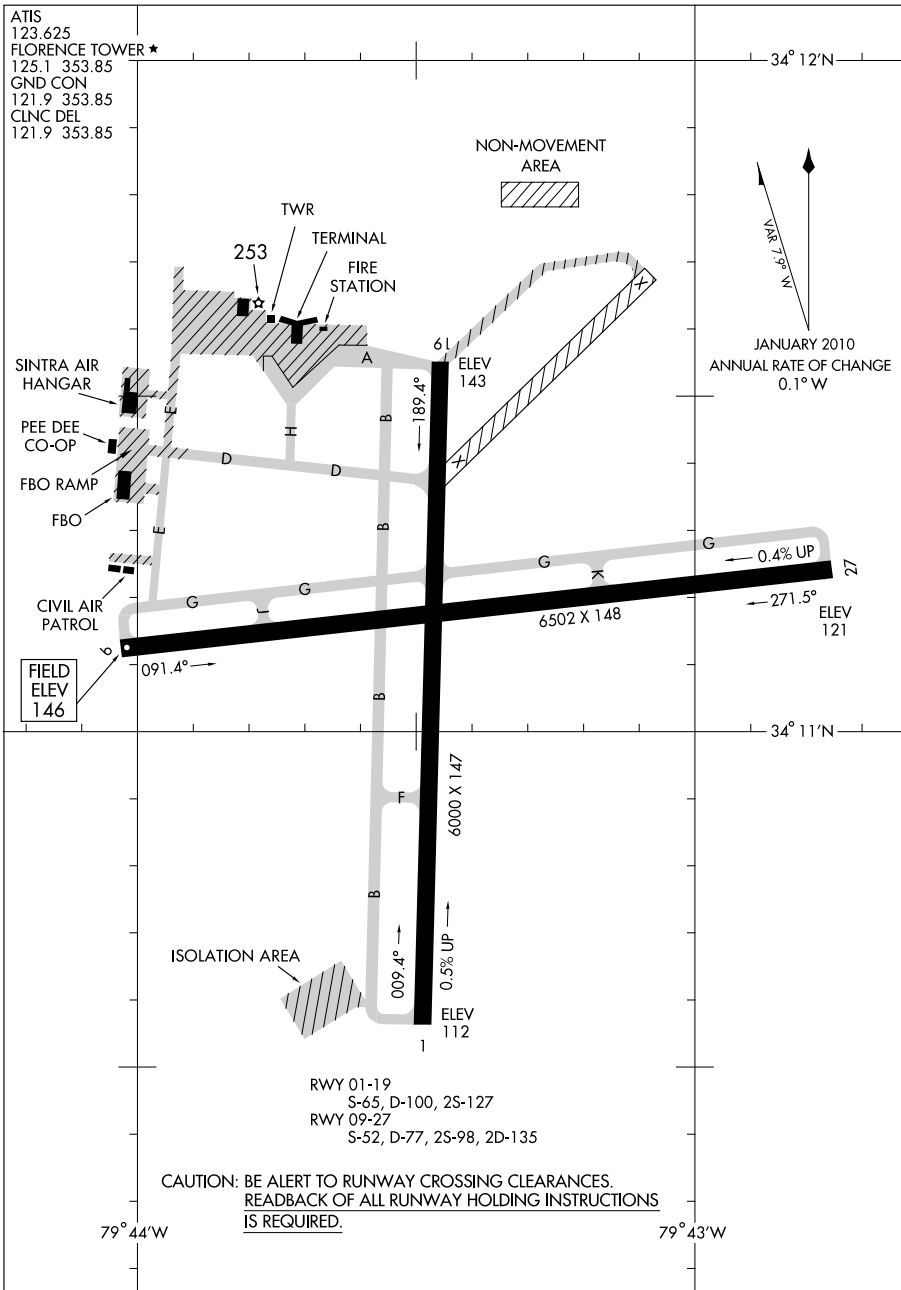
FERNANDINA BEACH, FLORIDA
FERNANDINA BEACH MUNI (FHB)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-145 (FAA)

FLORENCE RGNL (FLO)
FLORENCE, SOUTH CAROLINA

AIRPORT DIAGRAM

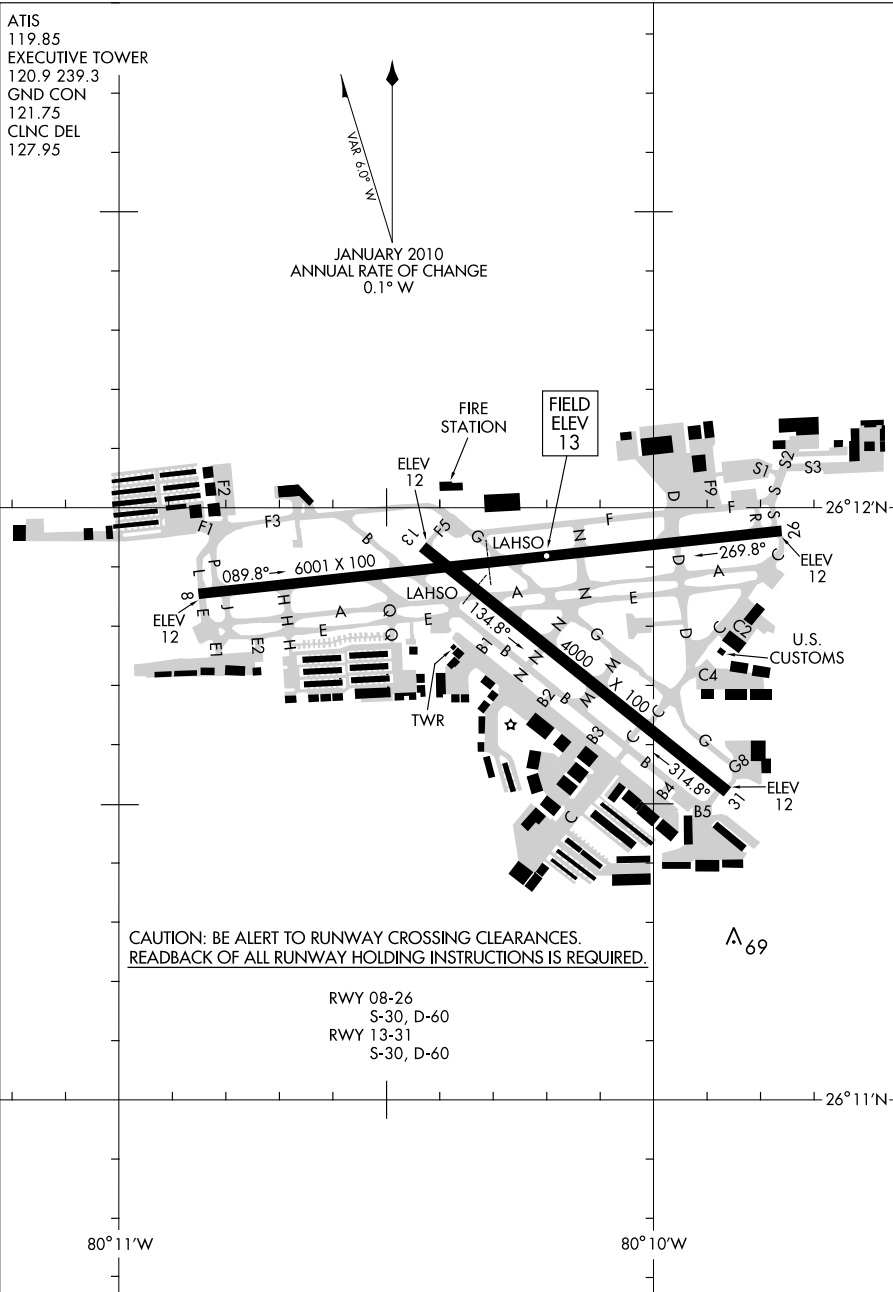
10210

FLORENCE, SOUTH CAROLINA
FLORENCE RGNL (FLO)

SE. 23 SEP 2010 to 18 NOV 2010

10210
AIRPORT DIAGRAM

AL-5942 (FAA) FORT LAUDERDALE EXECUTIVE (FXE)
FORT LAUDERDALE, FLORIDA



AIRPORT DIAGRAM
10210

FORT LAUDERDALE, FLORIDA
FORT LAUDERDALE EXECUTIVE (FXE)

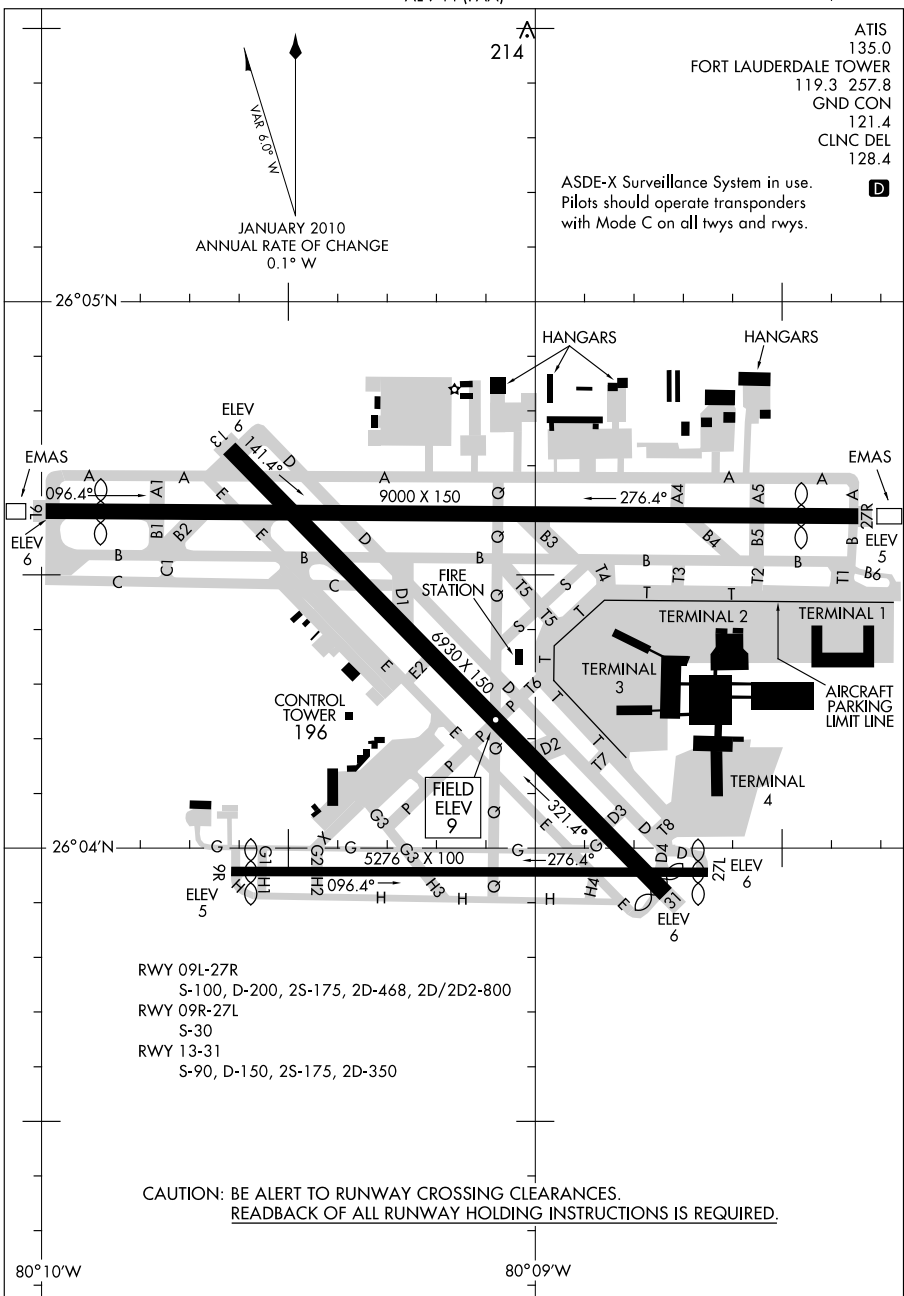
10210

AIRPORT DIAGRAM

FORT LAUDERDALE-HOLLYWOOD INTL (FLL)

AL-744 (FAA)

FORT LAUDERDALE, FLORIDA



AIRPORT DIAGRAM

10210

FORT LAUDERDALE, FLORIDA

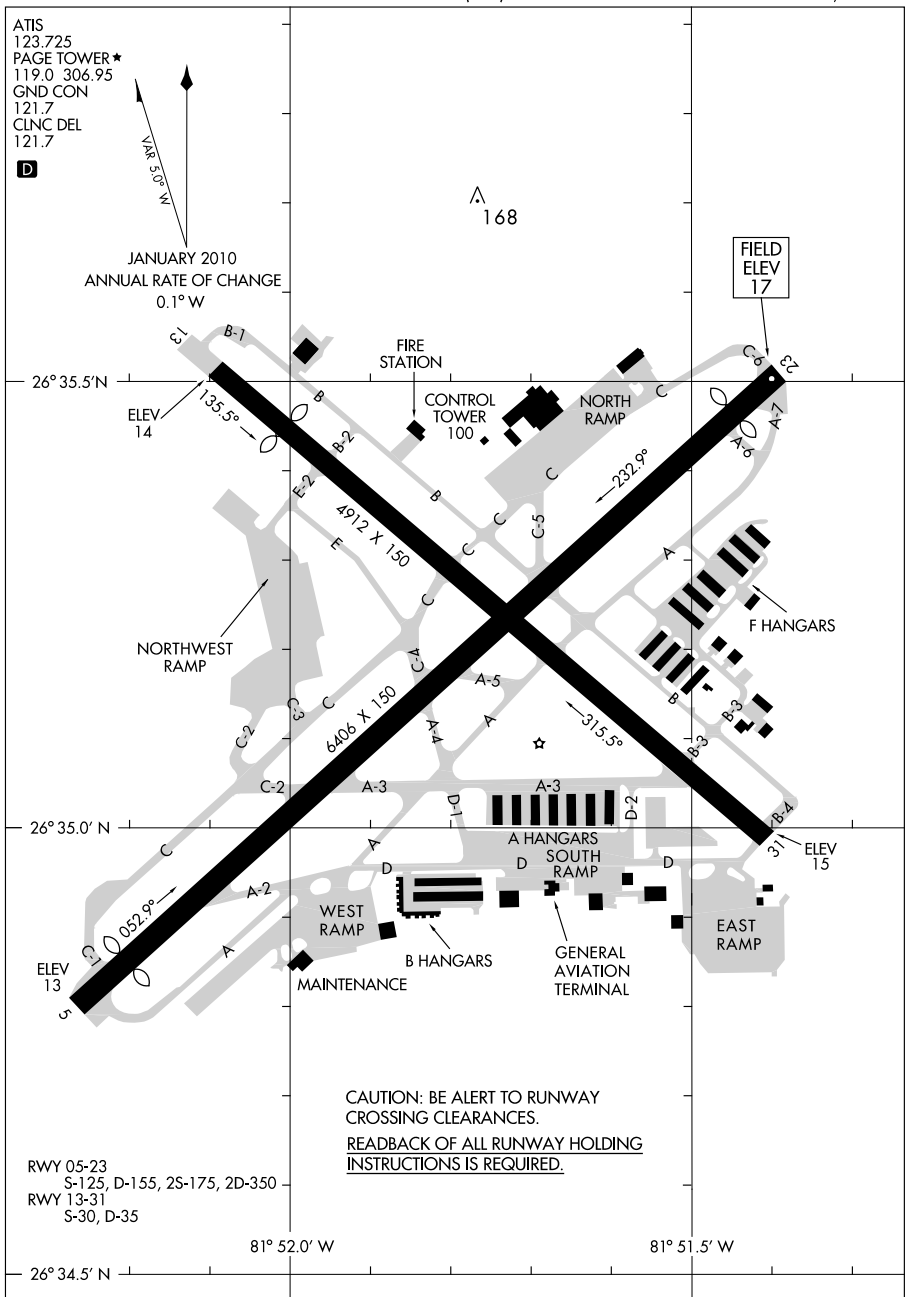
FORT LAUDERDALE-HOLLYWOOD INTL (FLL)

SE, 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-154 (FAA)

FORT MYERS /PAGE FIELD (FMY)
FORT MYERS, FLORIDA



AIRPORT DIAGRAM

FORT MYERS, FLORIDA
FORT MYERS /PAGE FIELD (FMY)

SE. 23 SEP 2010 to 18 NOV 2010

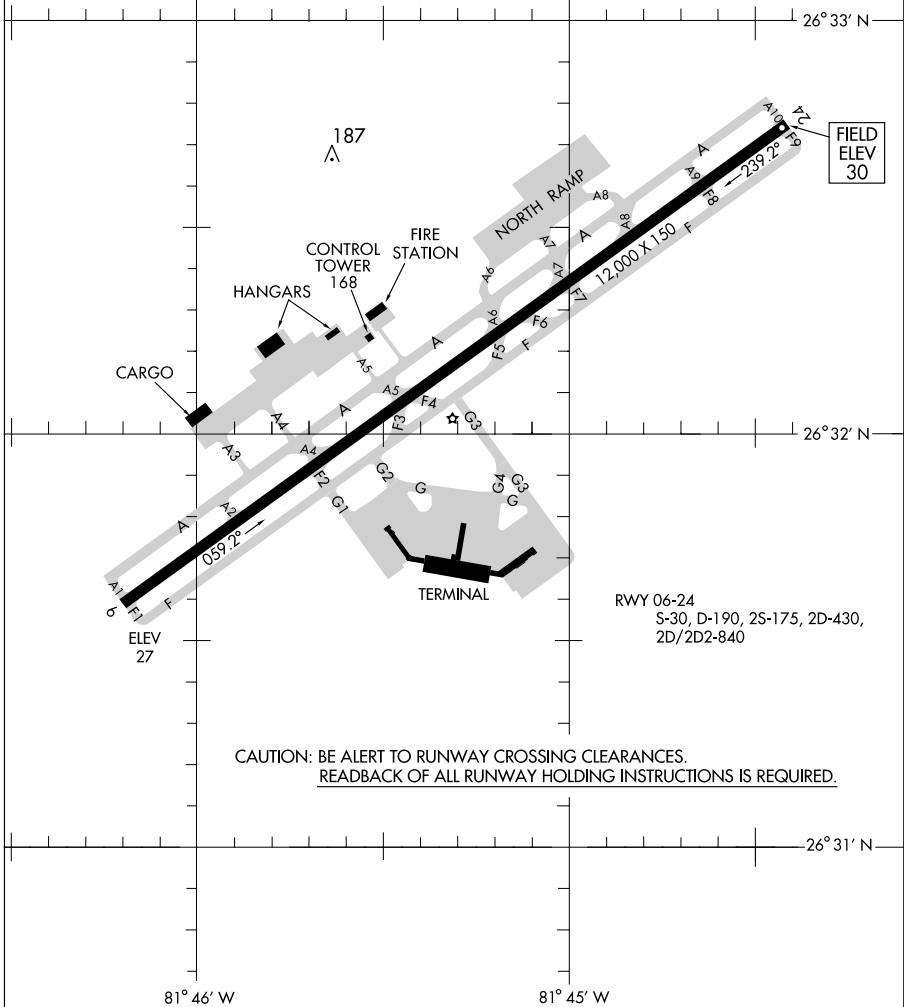
10210

AIRPORT DIAGRAM

FORT MYERS/SOUTHWEST FLORIDA INTL (RSW)
AL-6757 (FAA) FORT MYERS, FLORIDA

ATIS
124.65
FORT MYERS TOWER ★
128.75 257.8
GND CON
121.9 348.6
CLNC DEL
132.075

JANUARY 2010
ANNUAL RATE OF CHANGE
0.1° W



AIRPORT DIAGRAM

10210

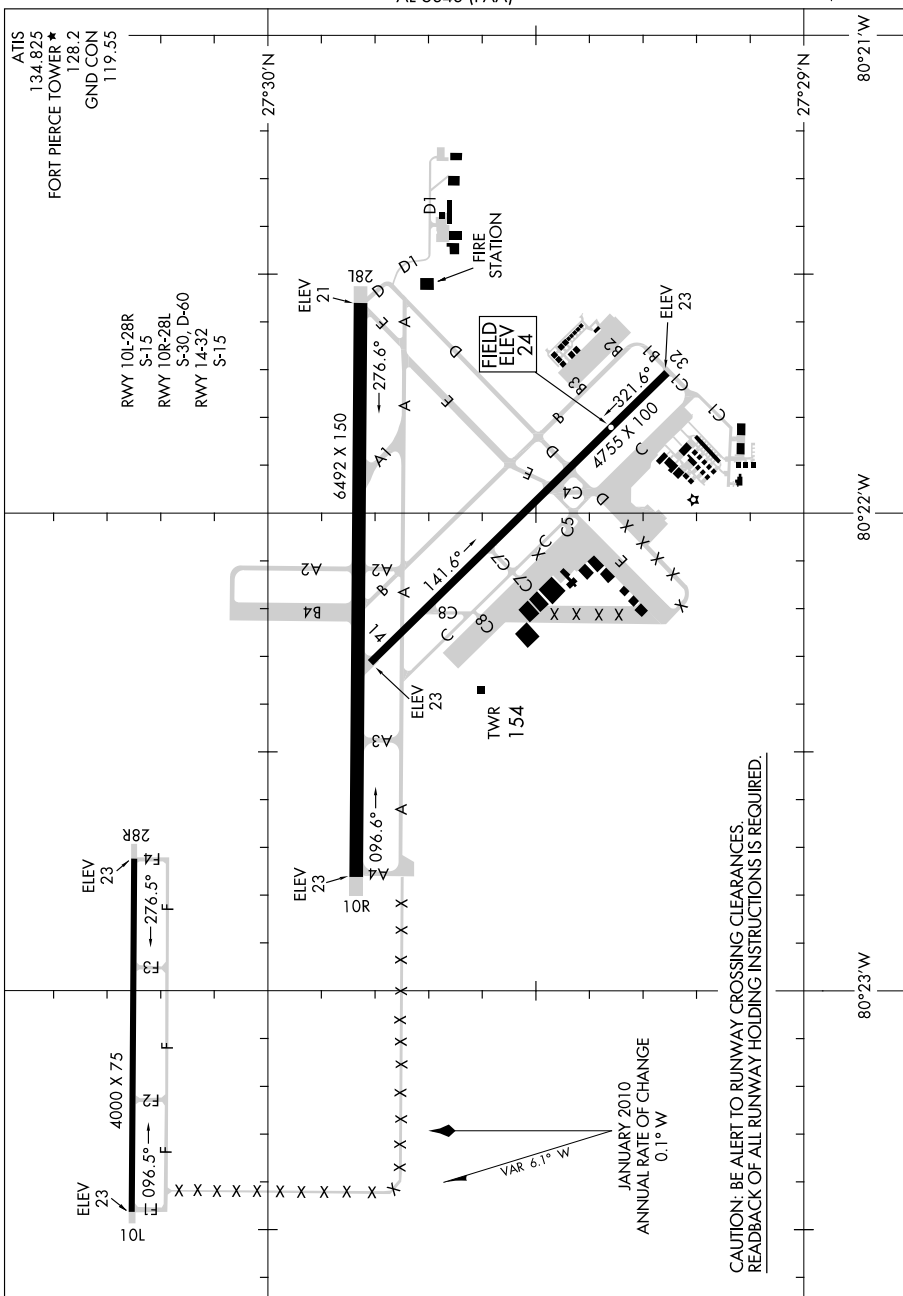
FORT MYERS, FLORIDA
FORT MYERS/SOUTHWEST FLORIDA INTL (RSW)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

FORT PIERCE/ST. LUCIE COUNTY INTL (FPR)
AL-5343 (FAA) FORT PIERCE, FLORIDA



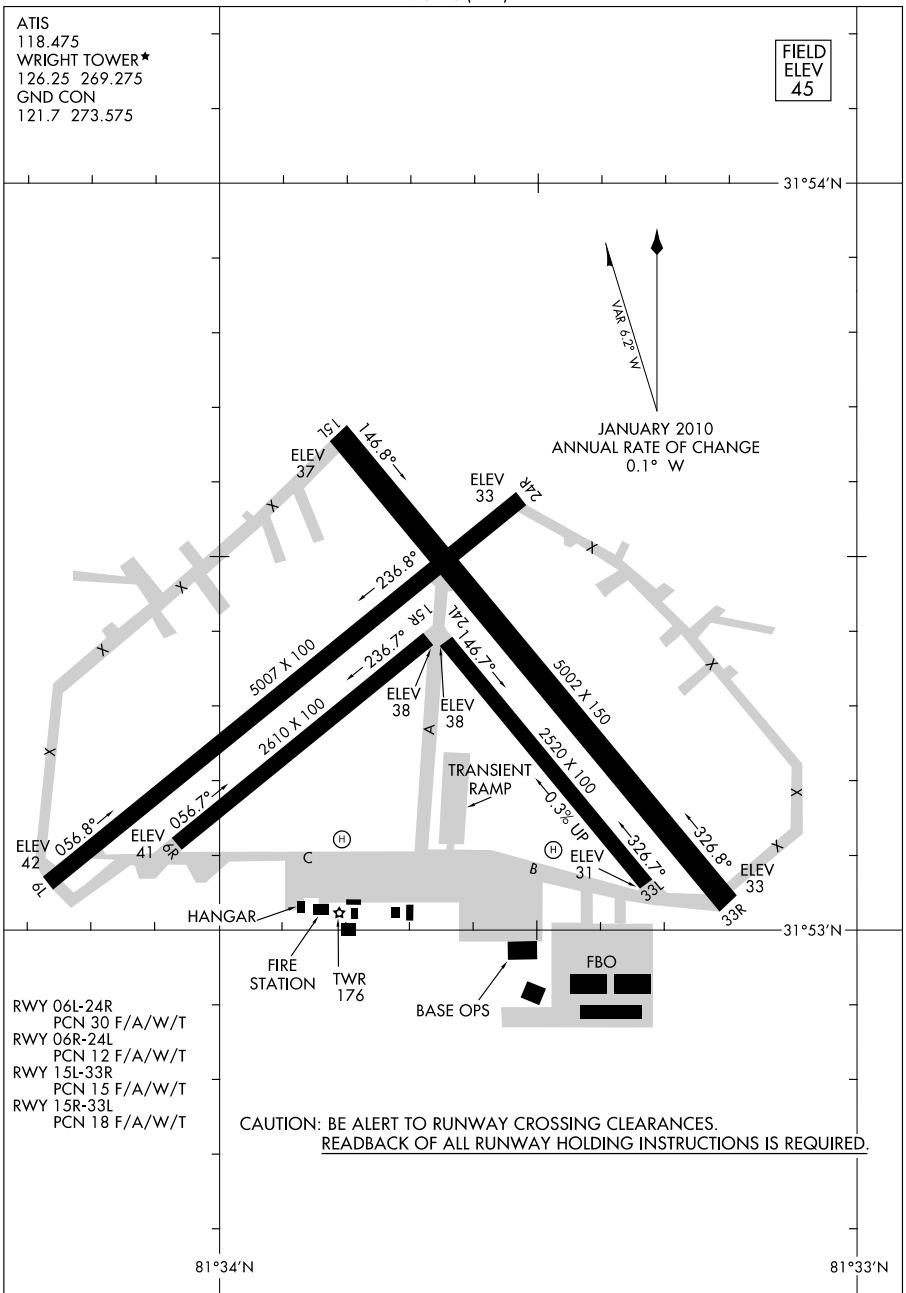
AIRPORT DIAGRAM

FORT PIERCE, FLORIDA
FORT PIERCE/ST. LUCIE COUNTY INTL (FPR)

10210

SE. 23 SEP 2010 to 18 NOV 2010

10210 FORT STEWART(HINESVILLE)/ WRIGHT AAF(FORT STEWART)/MIDCOAST RGNL(LHW)
AIRPORT DIAGRAM AL-5170 (FAA) FORT STEWART(HINESVILLE), GEORGIA

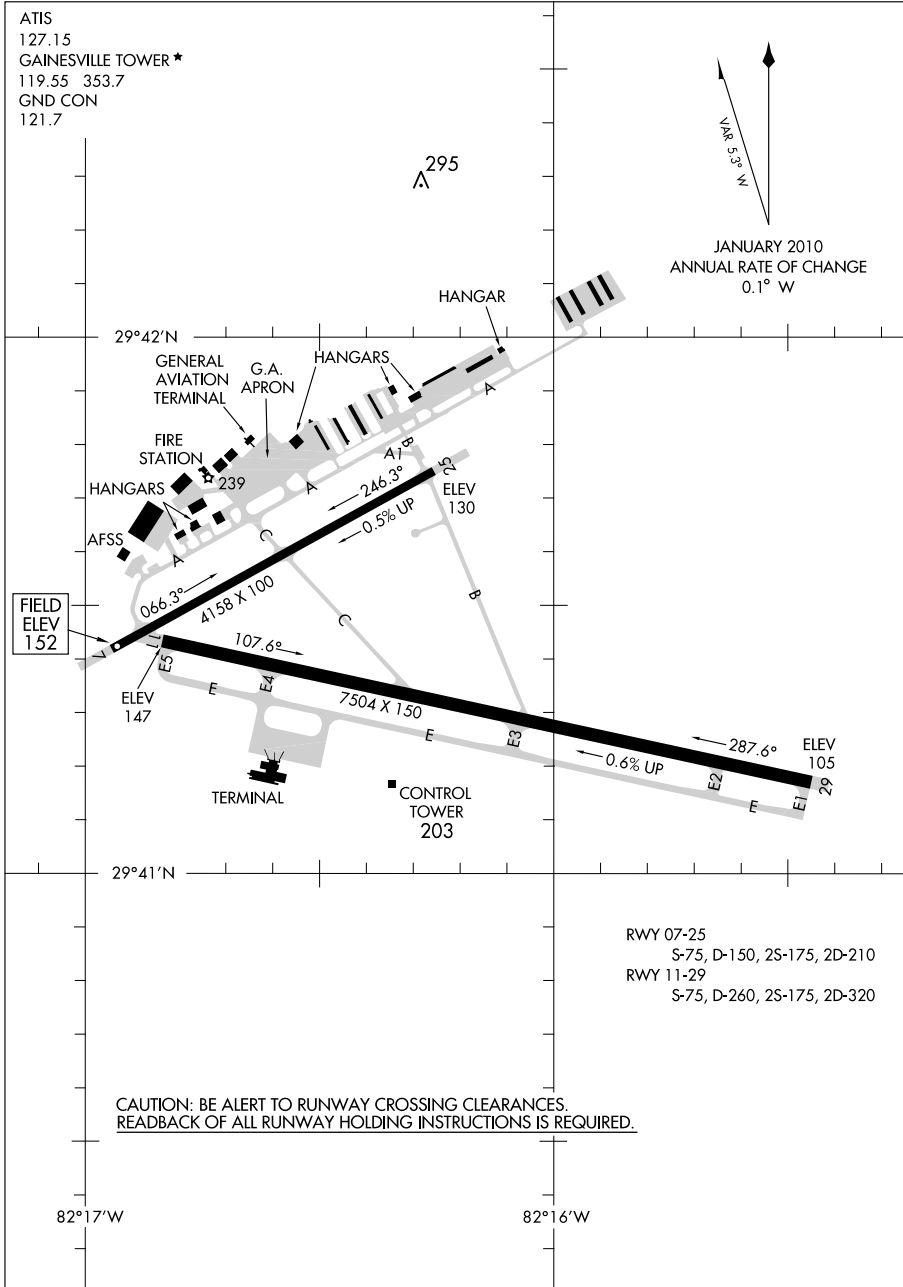


AIRPORT DIAGRAM FORT STEWART(HINESVILLE), GEORGIA
 10210 FORT STEWART(HINESVILLE)/ WRIGHT AAF(FORT STEWART)/MIDCOAST RGNL(LHW)

10210

AIRPORT DIAGRAM

AL-973 (FAA)

GAINESVILLE RGNL (GNV)
GAINESVILLE, FLORIDA

AIRPORT DIAGRAM

10210

GAINESVILLE, FLORIDA
GAINESVILLE RGNL (GNV)

SE. 23 SEP 2010 to 18 NOV 2010

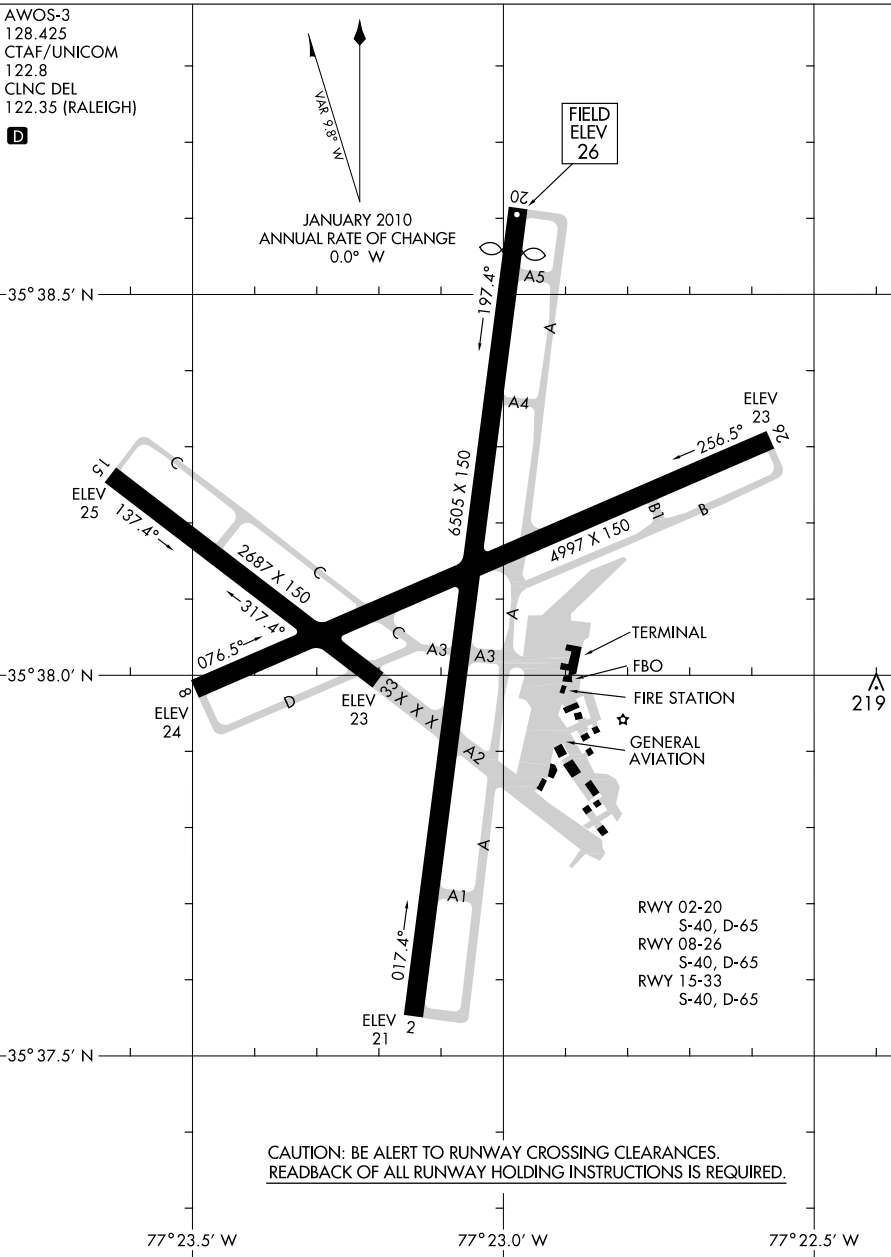
GREENSBORO, NORTH CAROLINA



SE, 23 SEP 2010 to 18 NOV 2010

10210
AIRPORT DIAGRAM

AL-5521 (FAA) GREENVILLE/PITT-GREENVILLE (PGV)
GREENVILLE, NORTH CAROLINA



AIRPORT DIAGRAM
10210

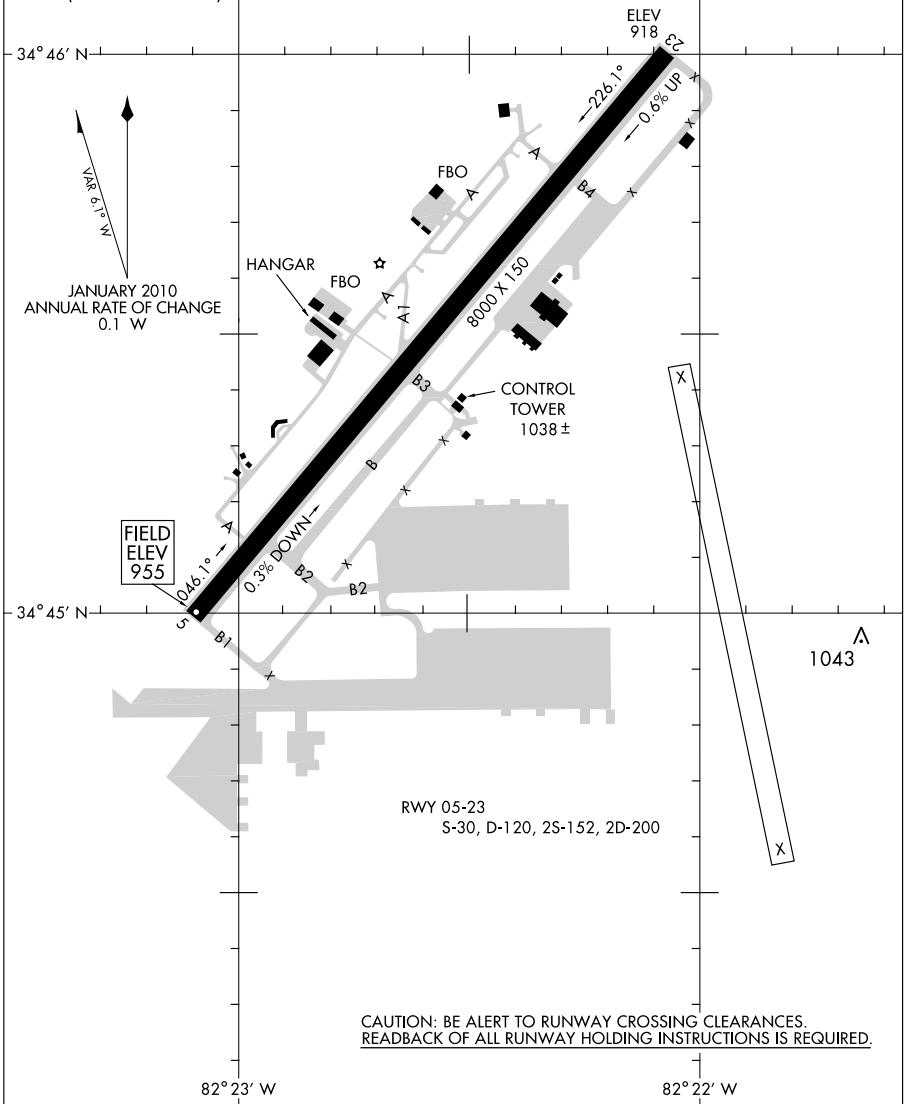
GREENVILLE, NORTH CAROLINA
GREENVILLE/PITT-GREENVILLE (PGV)

10210

AIRPORT DIAGRAM

GREENVILLE/ DONALDSON CENTER (GYH)
AL-179 (FAA) GREENVILLE, SOUTH CAROLINA

AWOS-3
127.325
DONALDSON TOWER ★
133.325 269.25
GND CON
121.4
CLNC DEL
121.4
125.95 (When Tower Closed)



AIRPORT DIAGRAM

10210

GREENVILLE, SOUTH CAROLINA
GREENVILLE/ DONALDSON CENTER (GYH)

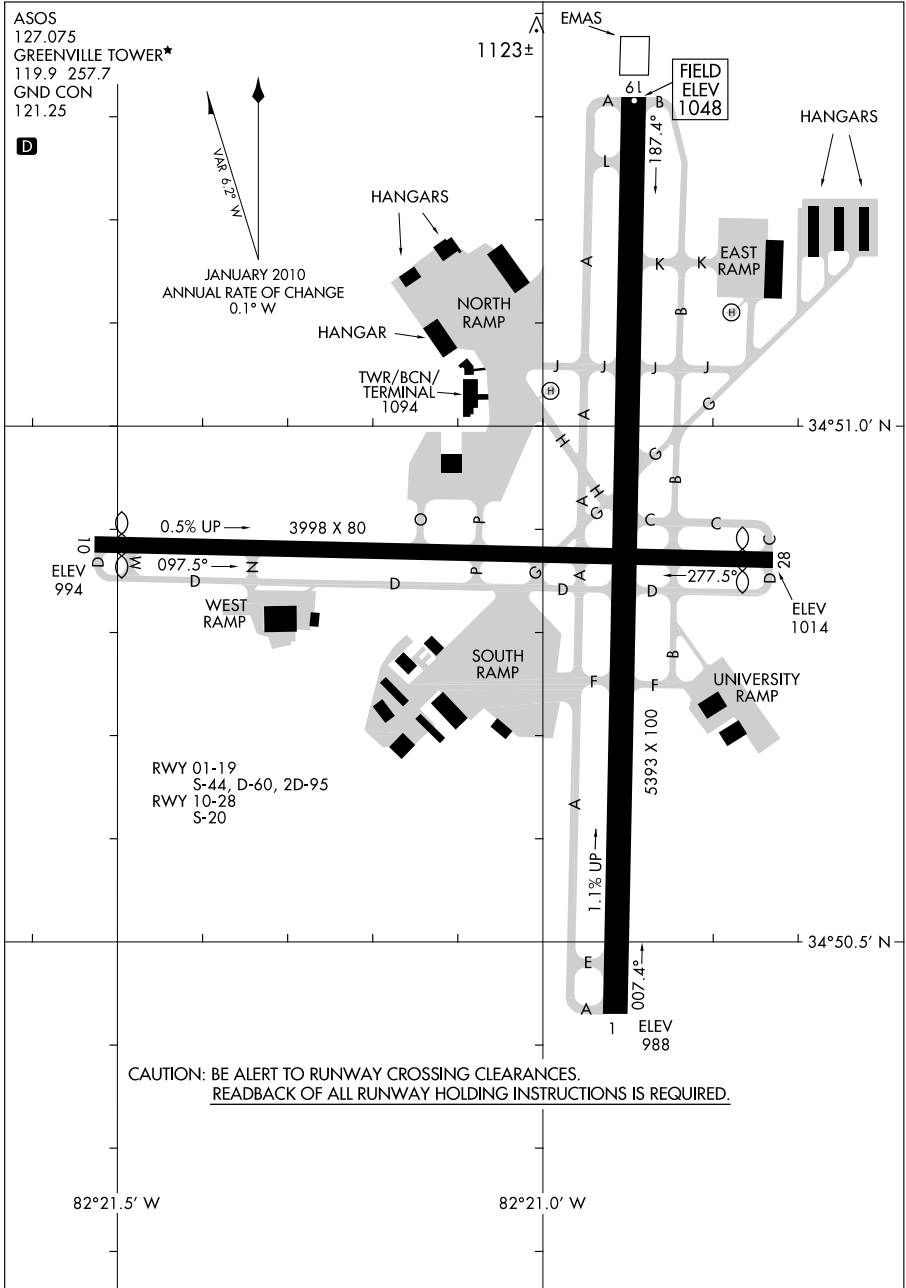
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-180 (FAA)

GREENVILLE DOWNTOWN (GMU)
GREENVILLE, SOUTH CAROLINA



AIRPORT DIAGRAM

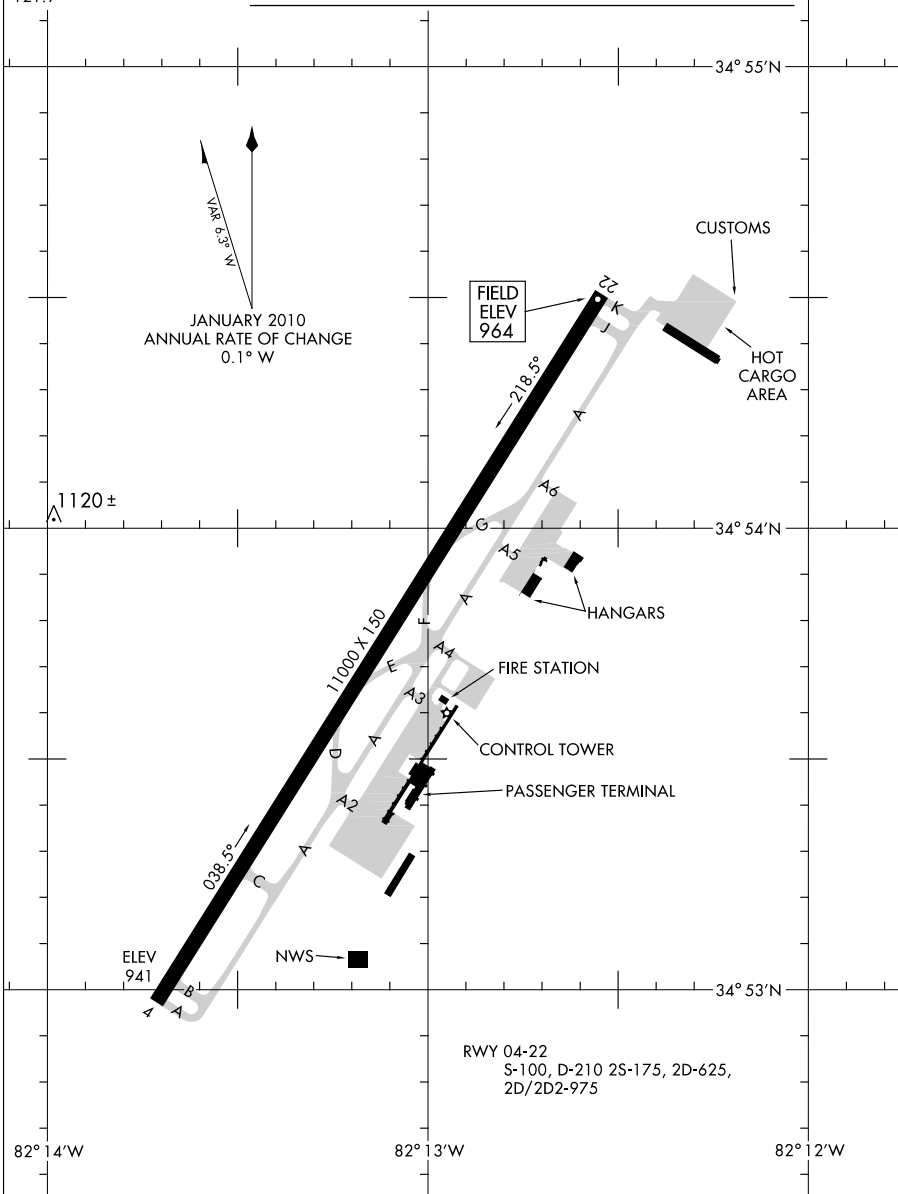
10210

GREENVILLE, SOUTH CAROLINA
GREENVILLE DOWNTOWN (GMU)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

GREER/ GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN (GSP)
AL-5124 (FAA)
GREER, SOUTH CAROLINAATIS 134.25
GREER TOWER ★
120.1 257.8
GND CON
121.9CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

GREER, SOUTH CAROLINA
GREER/ GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN (GSP)

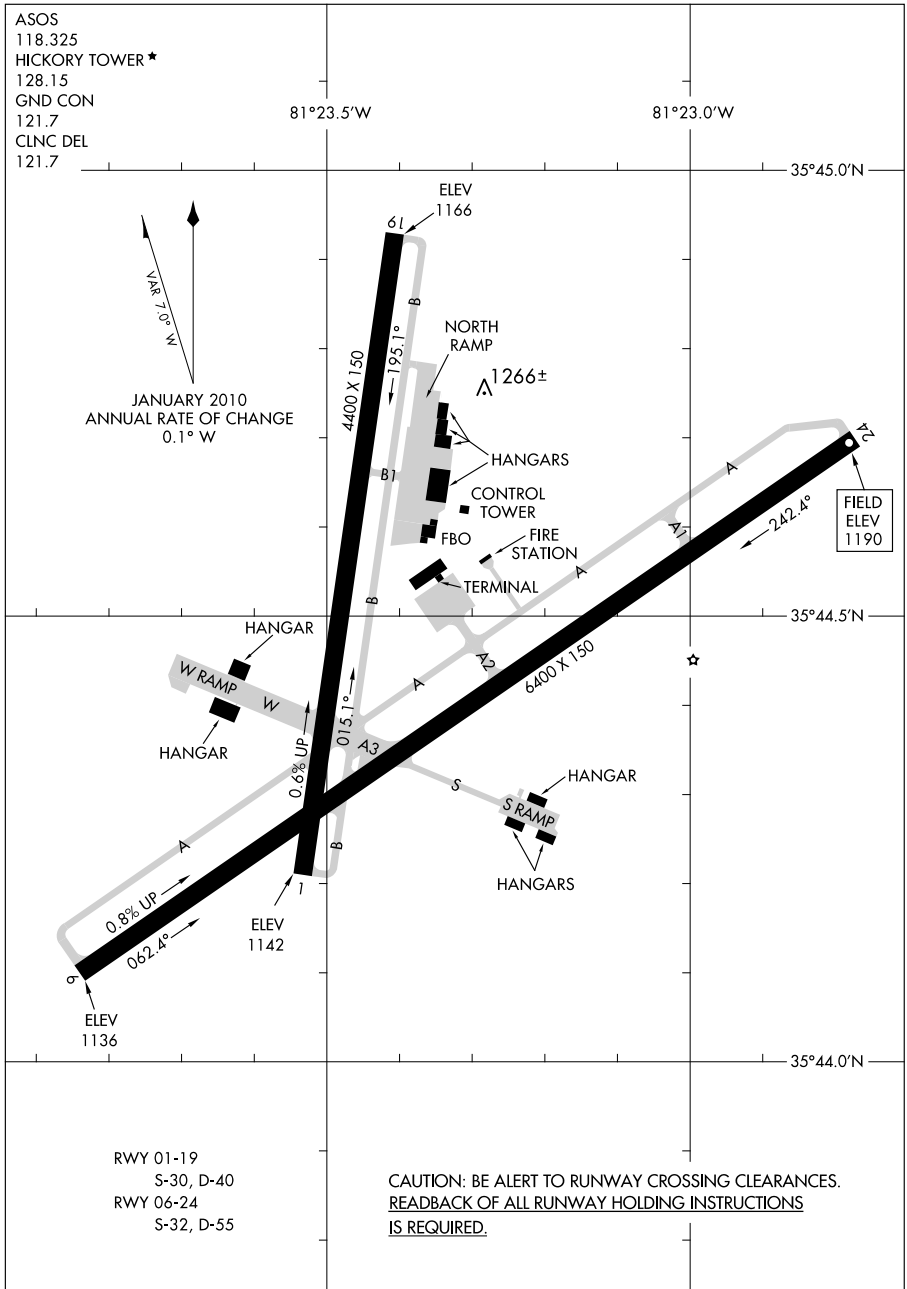
10210

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-706 (FAA)

HICKORY RGNL (HKY)
HICKORY, NORTH CAROLINA



AIRPORT DIAGRAM

HICKORY, NORTH CAROLINA
HICKORY RGNL (HKY)

SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

AL-5606 (FAA)

HOLLYWOOD /NORTH PERRY (HWO)

HOLLYWOOD, FLORIDA

ATIS

135.475

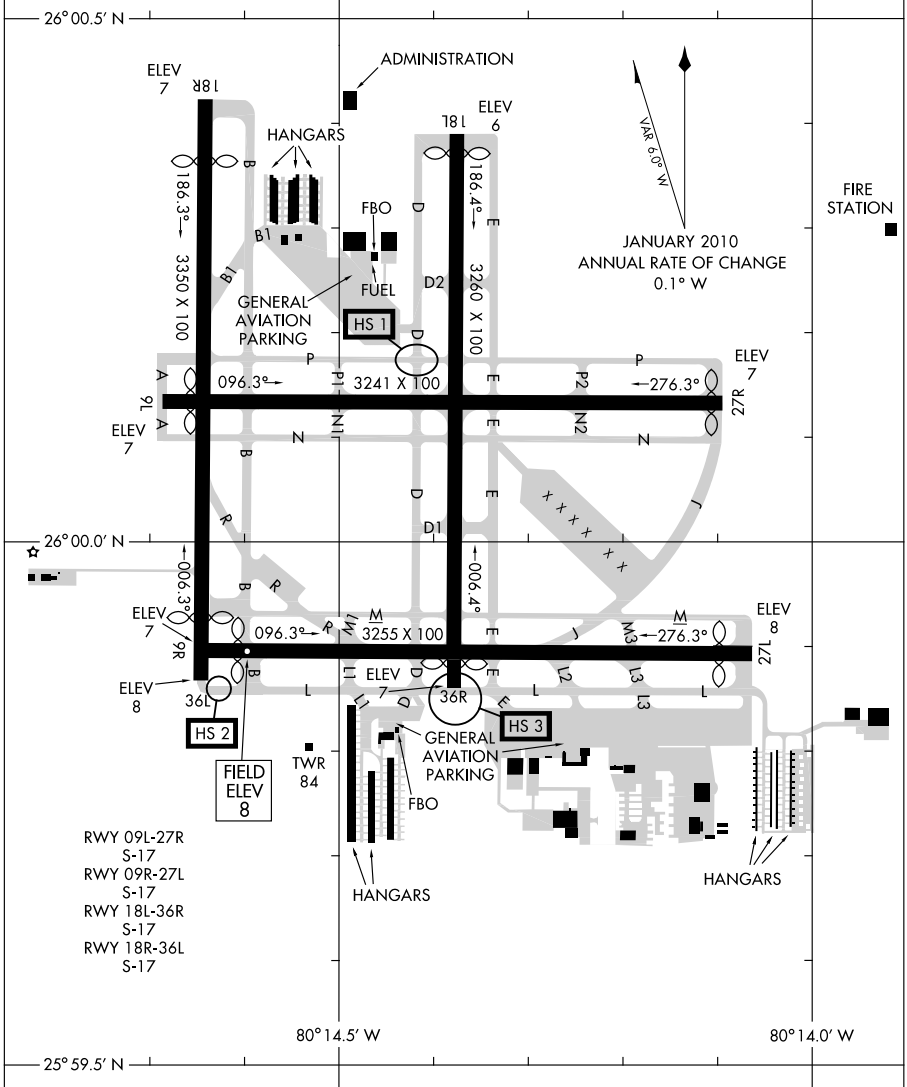
NORTH PERRY TOWER★

132.1 254.3

GND CON

120.45 254.3

CAUTION: BE ALERT TO RUNWAY
CROSSING CLEARANCES.
READBCK OF ALL RUNWAY HOLDING
INSTRUCTIONS IS REQUIRED.



AIRPORT DIAGRAM

HOLLYWOOD, FLORIDA

HOLLYWOOD /NORTH PERRY (HWO)

10266

SE. 23 SEP 2010 to 18 NOV 2010

08241

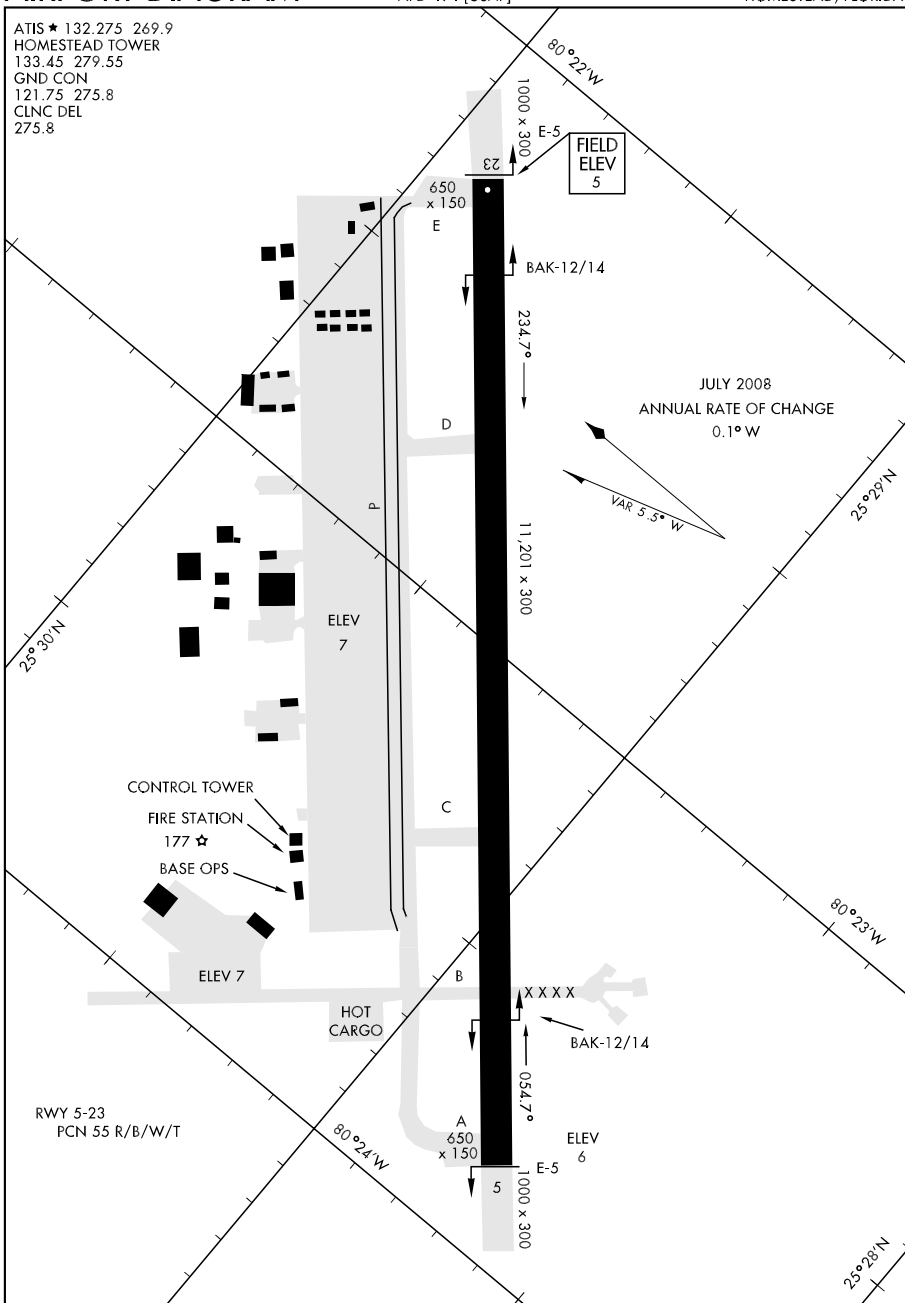
AIRPORT DIAGRAM

HOMESTEAD ARB (KHST)

HOMESTEAD, FLORIDA

ATIS ★ 132.275 269.9
 HOMESTEAD TOWER
 133.45 279.55
 GND CON
 121.75 275.8
 CLNC DEL
 275.8

AFD-494 [USAF]



AIRPORT DIAGRAM

HOMESTEAD, FLORIDA

HOMESTEAD ARB (KHST)

SE. 23 SEP 2010 to 18 NOV 2010

09351

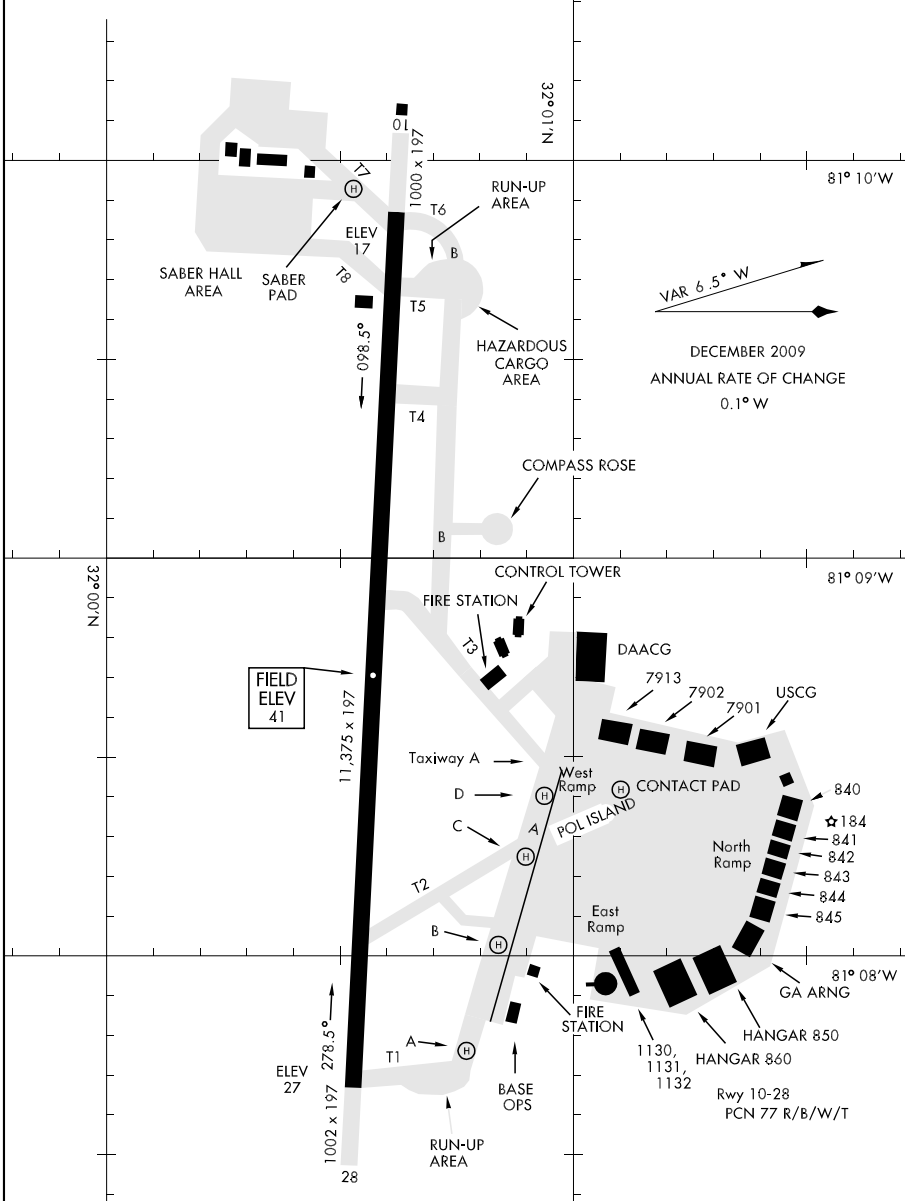
AIRPORT DIAGRAM

AFD-381 [USA]

HUNTER AAF (KSVN)

SAVANNAH, GEORGIA

ATIS 127.525 323.125
HUNTER TOWER ★
124.975 279.575
GND CON
121.8 291.675



AIRPORT DIAGRAM

SAVANNAH, GEORGIA

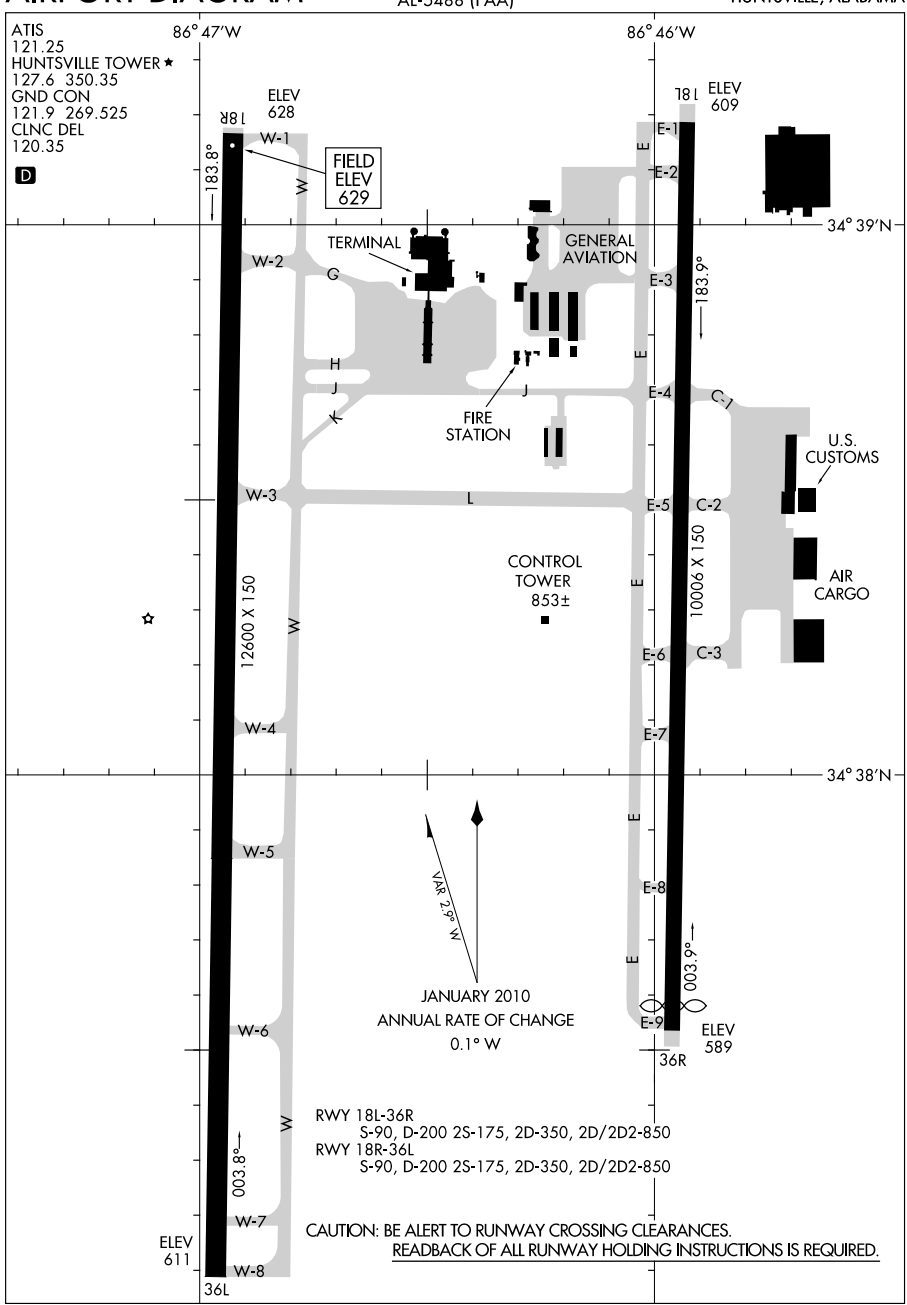
HUNTER AAF (KSVN)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

HUNTSVILLE INTL-CARL T. JONES FIELD (HSV)
AL-5488 (FAA) HUNTSVILLE, ALABAMA



AIRPORT DIAGRAM

10210

HUNTSVILLE, ALABAMA
HUNTSVILLE INTL-CARL T. JONES FIELD (HSV)

SE. 23 SEP 2010 to 18 NOV 2010

09015

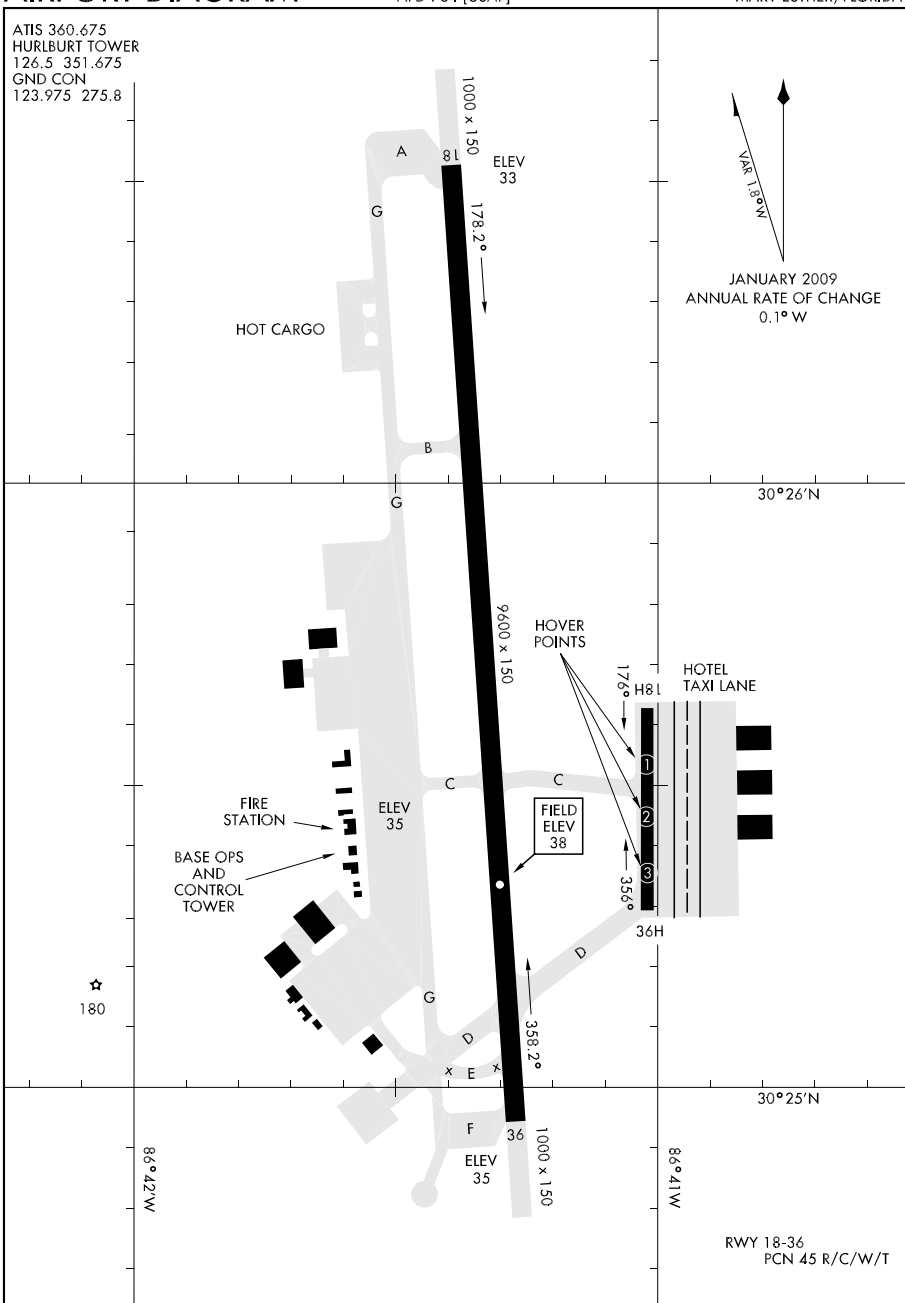
AIRPORT DIAGRAM

AFD-734 [USAF]

HURLBURT FLD (KHRT)

MARY ESTHER, FLORIDA

ATIS 360.675
HURLBURT TOWER
126.5 351.675
GND CON
123.975 275.8



AIRPORT DIAGRAM

MARY ESTHER, FLORIDA

HURLBURT FLD (KHRT)

10210

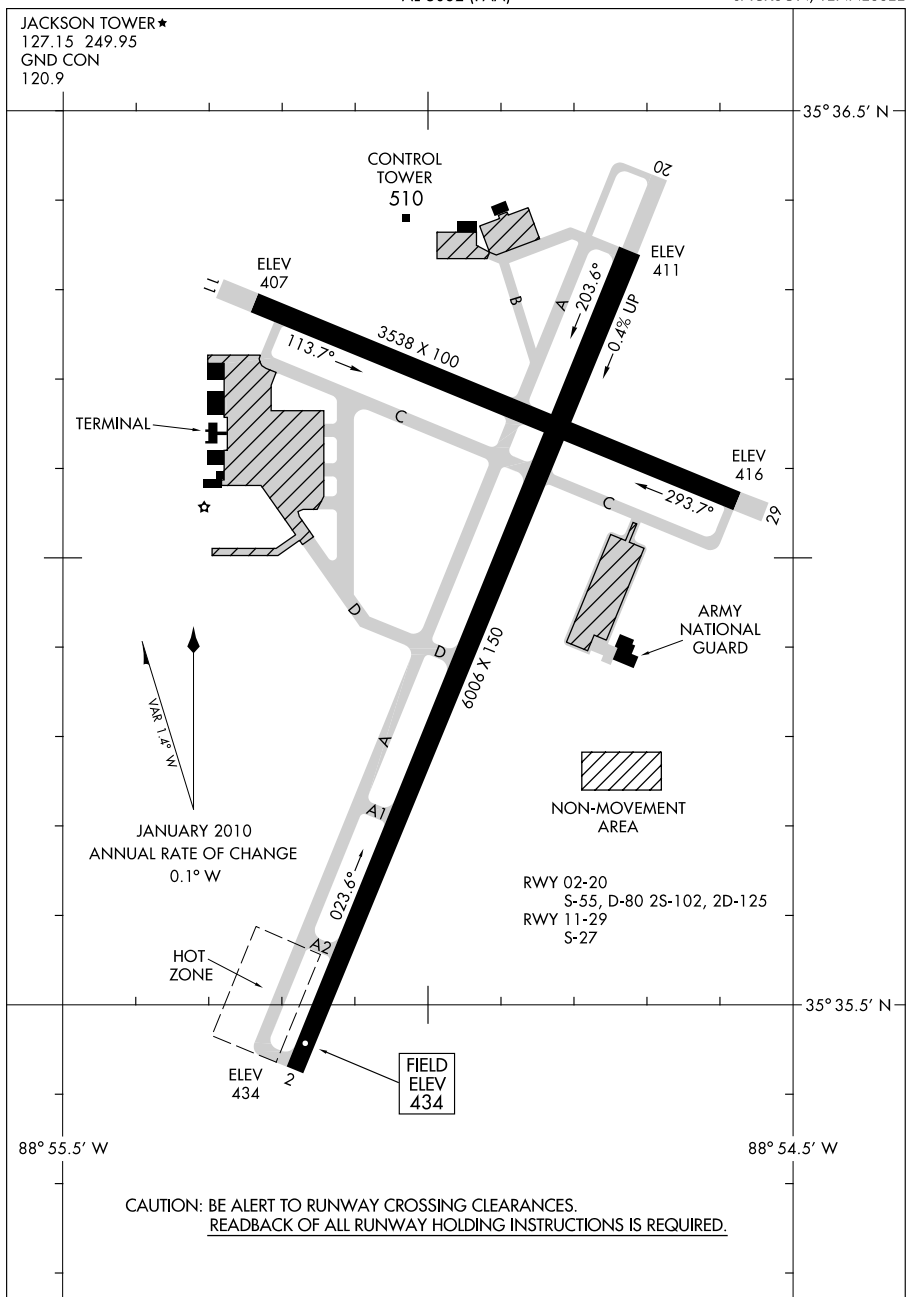
AIRPORT DIAGRAM

AL-5062 (FAA)

JACKSON/McKELLAR-SIPES RGNL (MKL)

JACKSON, TENNESSEE

JACKSON TOWER ★
127.15 249.95
GND CON
120.9



AIRPORT DIAGRAM

10210

JACKSON, TENNESSEE
JACKSON/McKELLAR-SIPES RGNL (MKL)

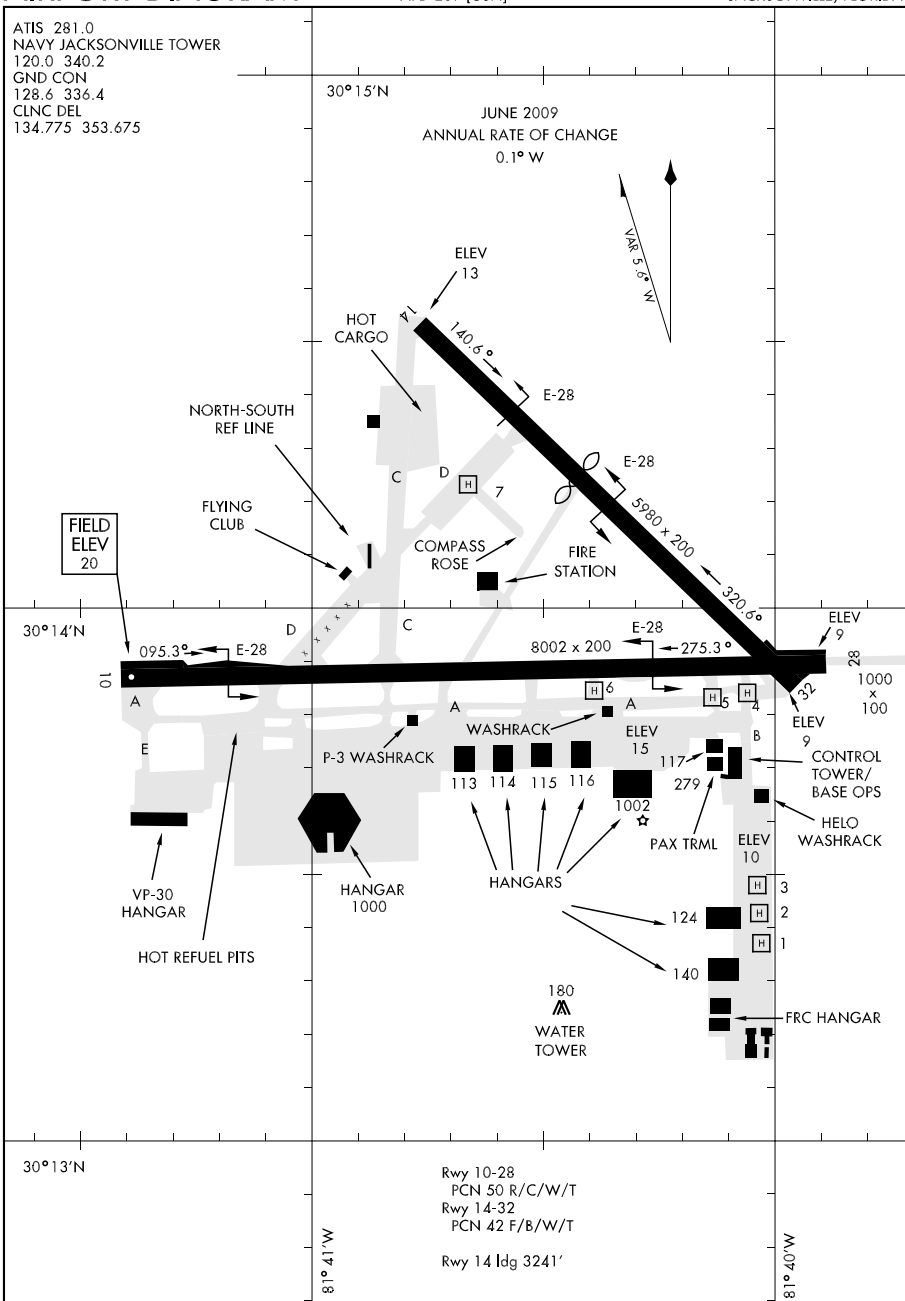
SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

JACKSONVILLE, FLORIDA

AFD-209 [USN]

ATIS 281.0
NAVY JACKSONVILLE TOWER
120.0 340.2
GND CON
128.6 336.4
CLNC DEL
134.775 353.675



AIRPORT DIAGRAM

JACKSONVILLE, FLORIDA
JACKSONVILLE NAS (KNIP)

SE, 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

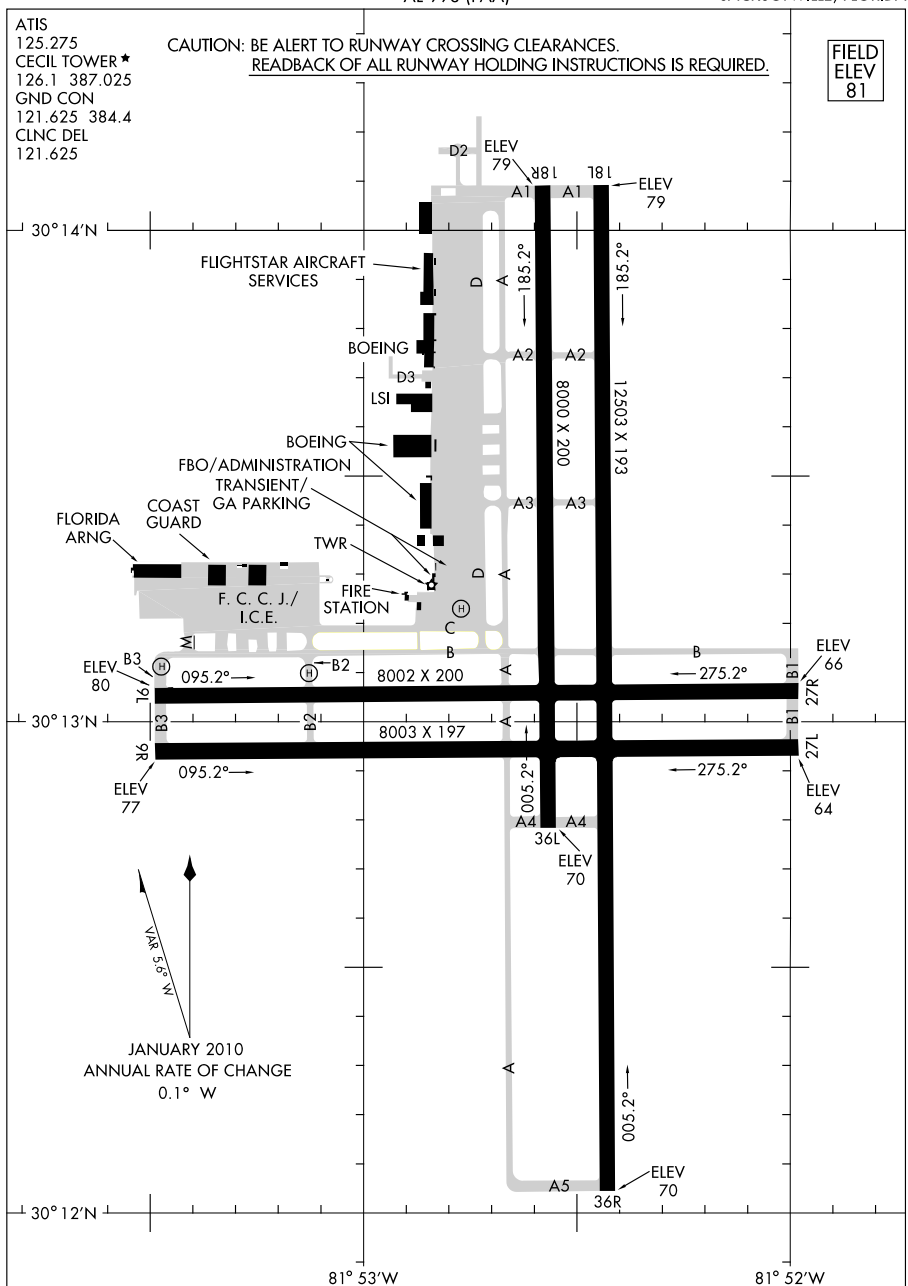
AL-998 (FAA)

JACKSONVILLE/ CECIL FIELD (VQQ)

JACKSONVILLE, FLORIDA

ATIS	
125.275	
CECIL TOWER ★	
126.1	387.025
GND CON	
121.625	384.4
CLNC DEL	
121.625	

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

FIELD
ELEV
81

AIRPORT DIAGRAM

10266

JACKSONVILLE, FLORIDA
JACKSONVILLE/ CECIL FIELD (VQQ)

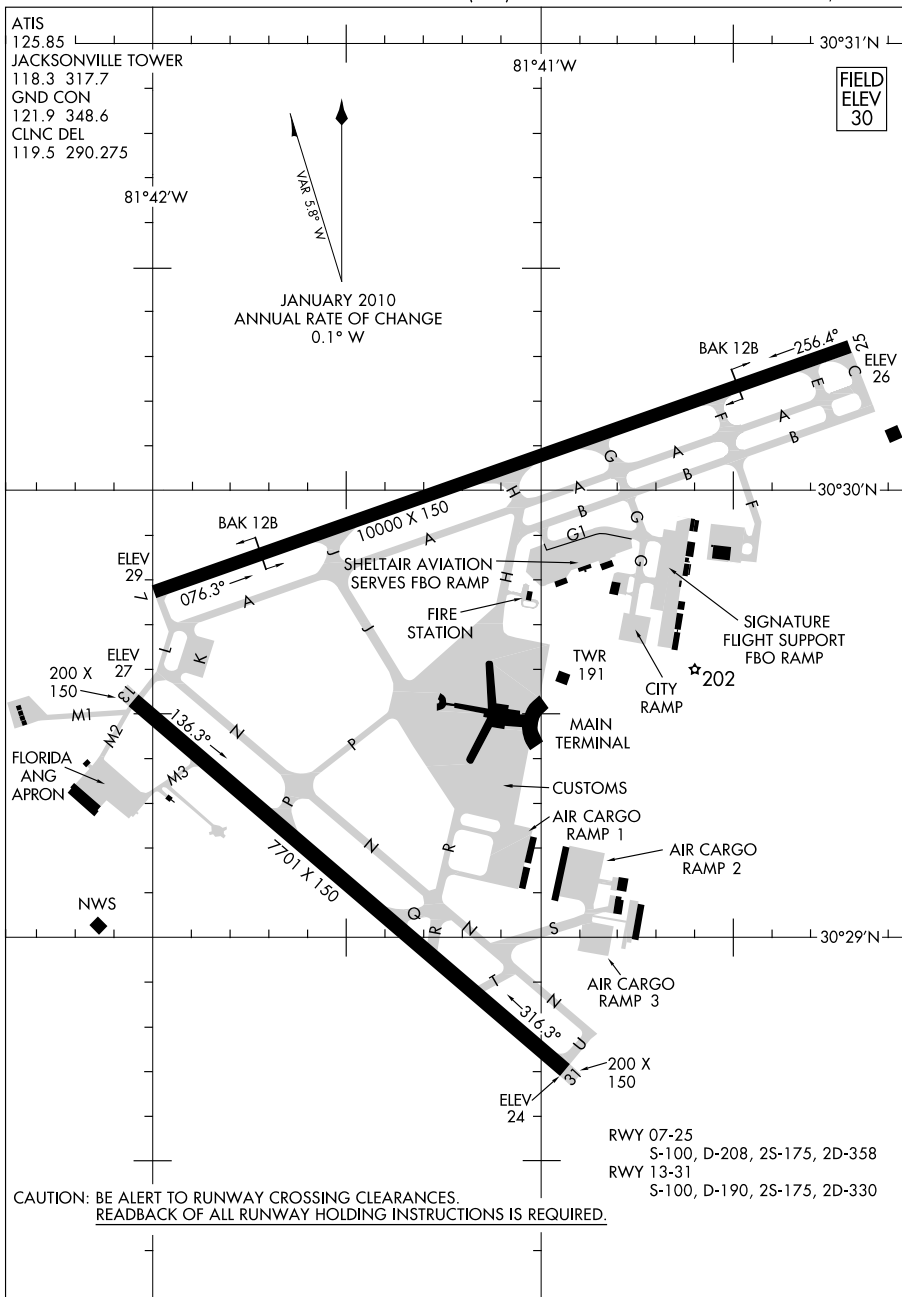
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-5570 (FAA)

JACKSONVILLE INTL (JAX)
JACKSONVILLE, FLORIDA



AIRPORT DIAGRAM

10210

JACKSONVILLE, FLORIDA
JACKSONVILLE INTL (JAX)

SE. 23 SEP 2010 to 18 NOV 2010

KEY WEST NAS (BOCA CHICA FLD) (KNQX)

AFD-214 [USN]

KEY WEST, FLORIDA

OCTOBER 2008
ANNUAL RATE OF CHANGE
0.1°W



RWY 7-25
PCN 59 R/B/W/T
RWY 3-21
PCN 60 F/A/W/T
RWY 13-31
PCN 51 F/A/W/T

AIRPORT DIAGRAM

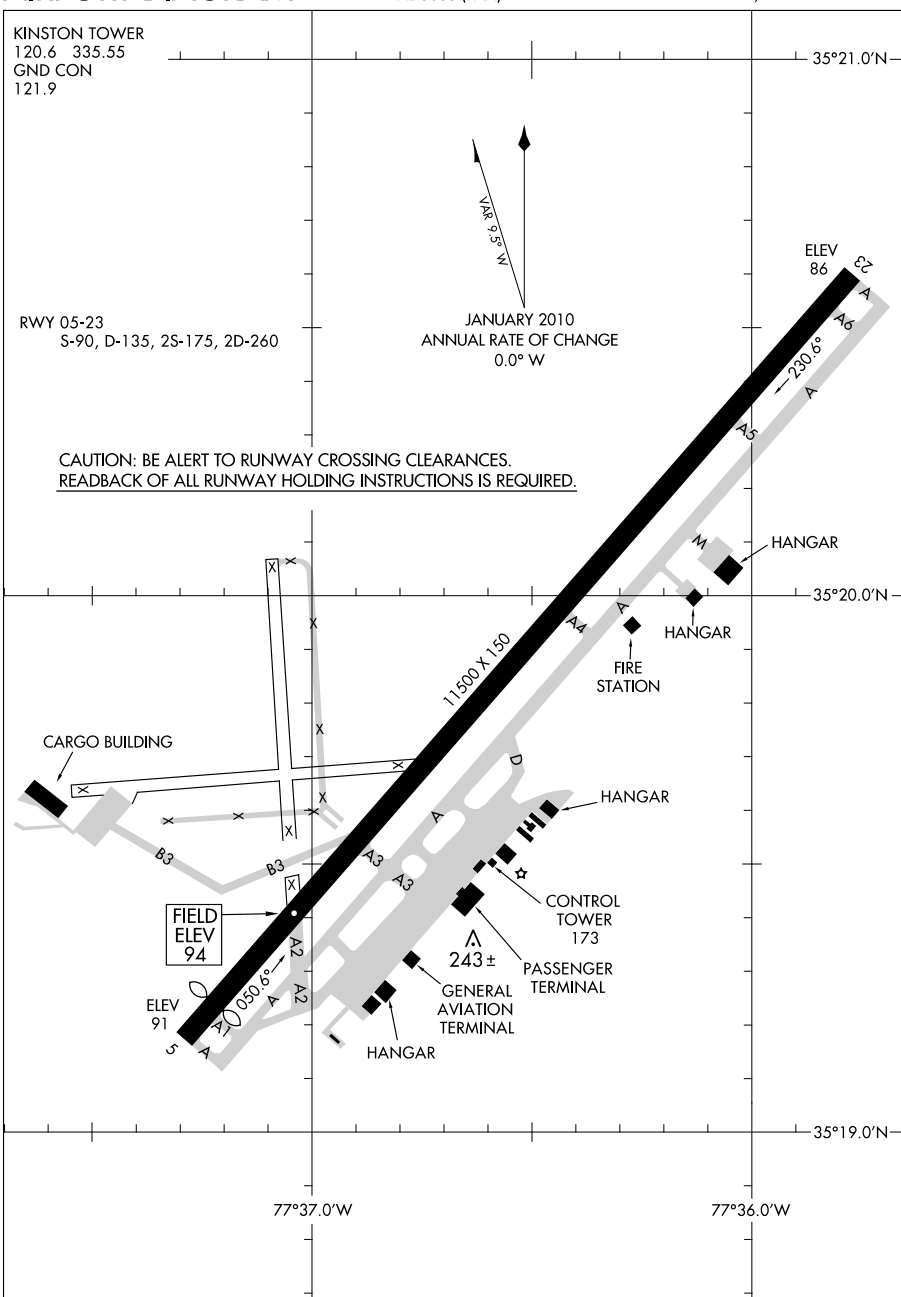
KEY WEST, FLORIDA

KEY WEST NAS (BOCA CHICA FLD) (KNQX)

SE, 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

KINSTON RGNL JETPORT AT STALLINGS FIELD (ISO)
AL-5038 (FAA) KINSTON, NORTH CAROLINA



AIRPORT DIAGRAM

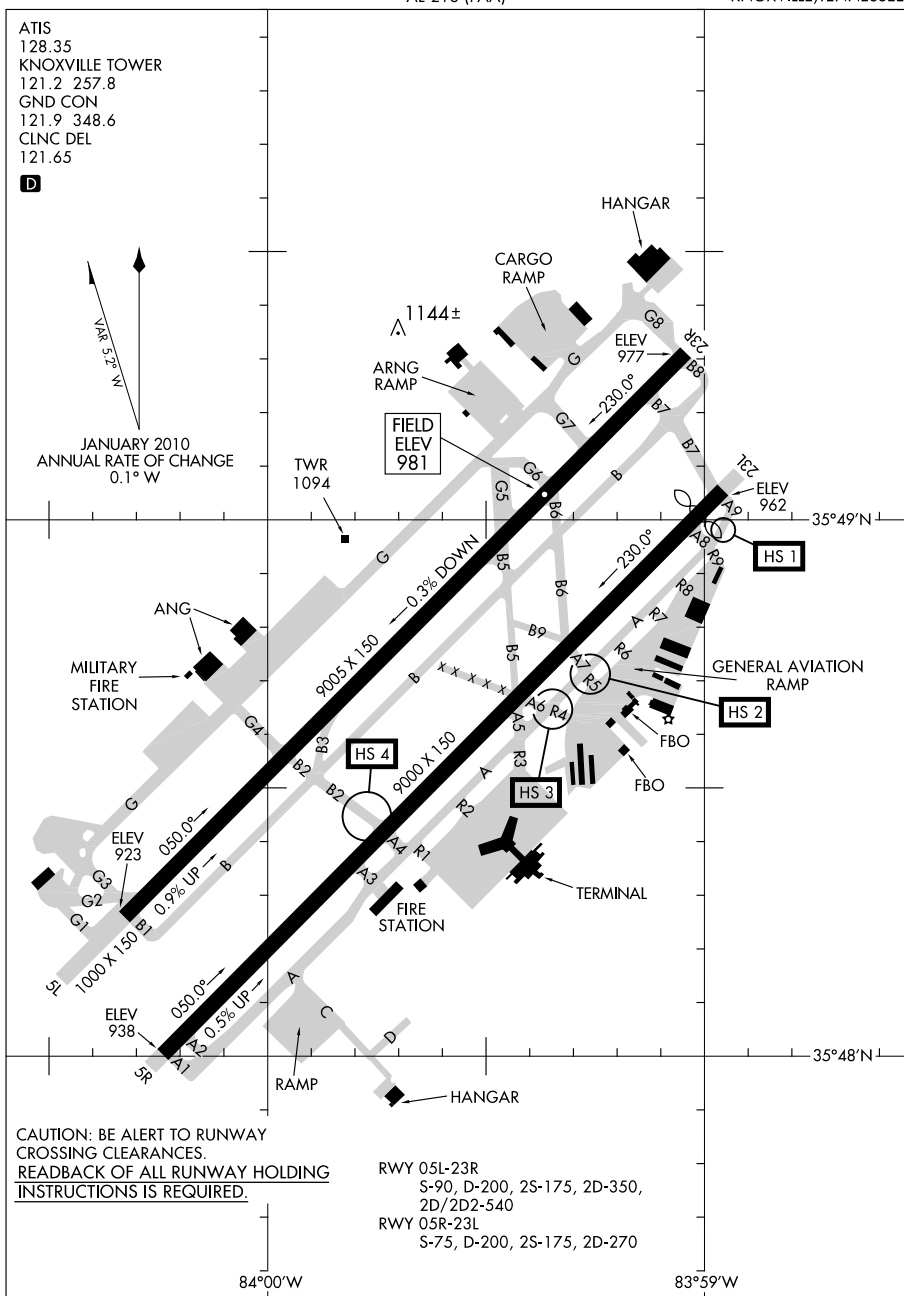
KINSTON, NORTH CAROLINA
KINSTON RGNL JETPORT AT STALLINGS FIELD (ISO)

AIRPORT DIAGRAM

AL-218 (FAA)

KNOXVILLE / MCGHEE-TYSON (TYS)
KNOXVILLE, TENNESSEE

ATIS
128.35
KNOXVILLE TOWER
121.2 257.8
GND CON
121.9 348.6
CLNC DEL
121.65



AIRPORT DIAGRAM

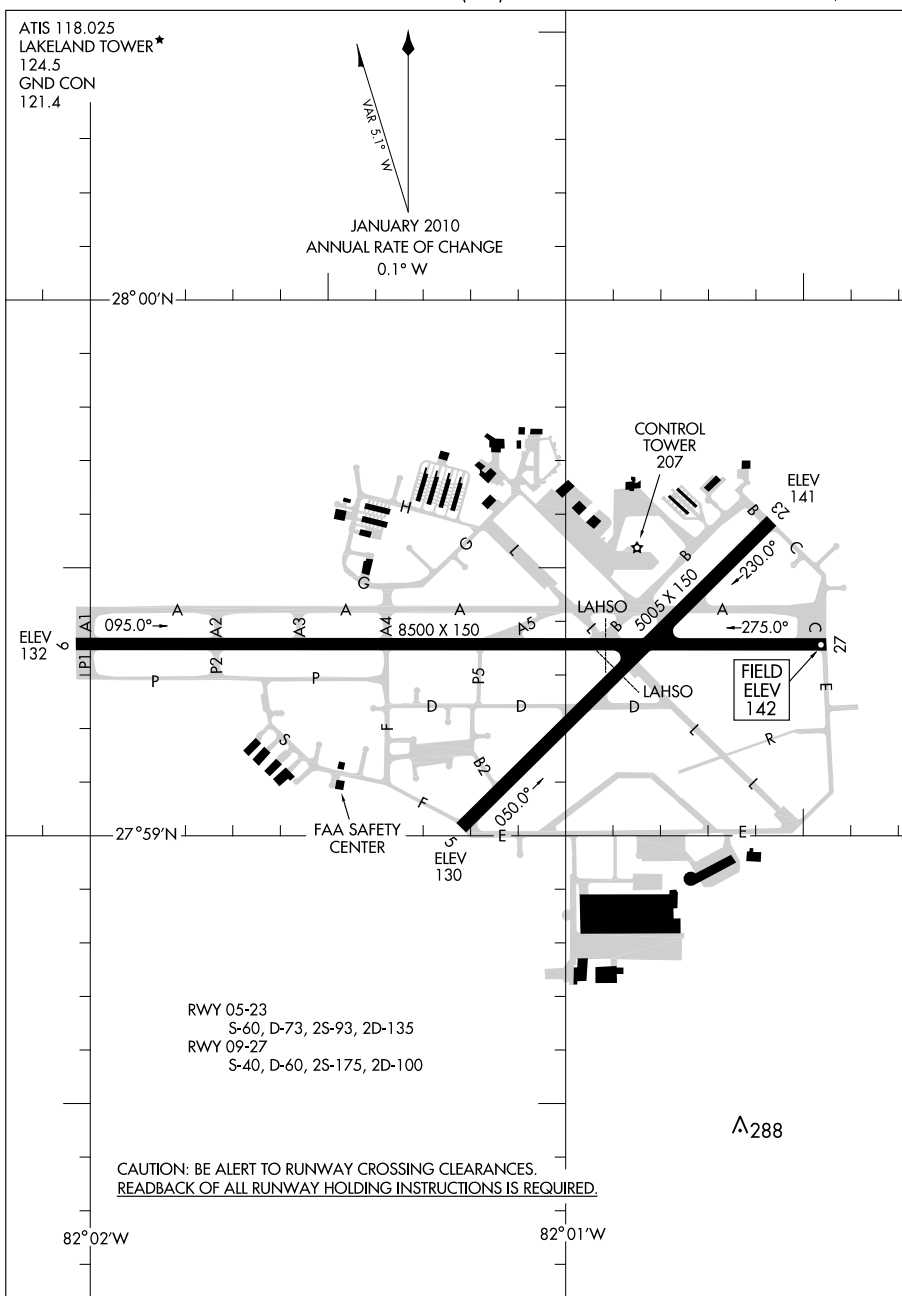
10266

KNOXVILLE, TENNESSEE
KNOXVILLE / MCGHEE-TYSON (TYS)

SE, 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

LAKELAND LINDER RGNL (LAL)
LAKELAND, FLORIDA

AIRPORT DIAGRAM

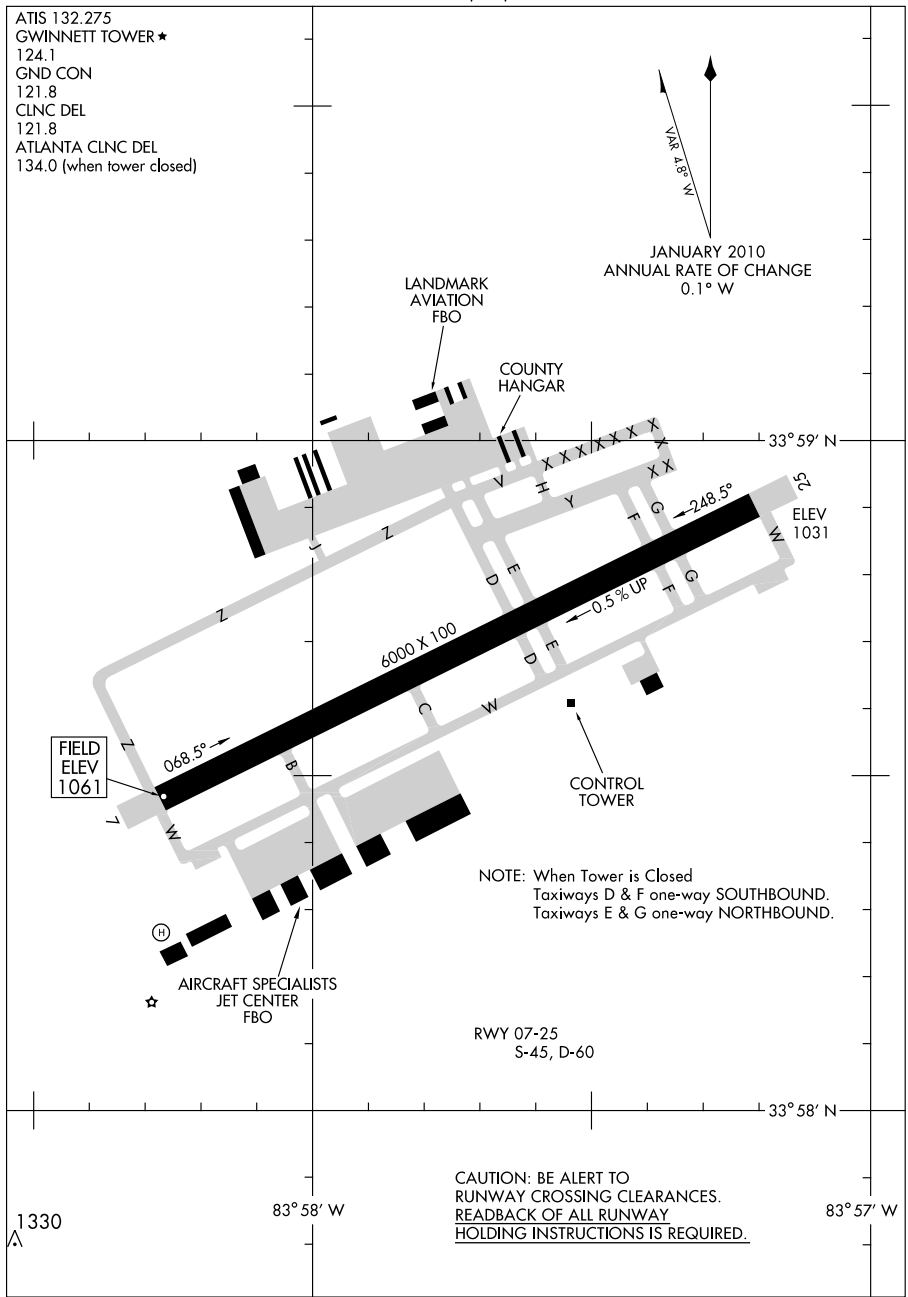
LAKELAND, FLORIDA
LAKELAND LINDER RGNL (LAL)

10210

10210

AIRPORT DIAGRAM

LAWRENCEVILLE/GWINNETT COUNTY-BRISCOE FIELD (LZU)
AL-5385 (FAA) LAWRENCEVILLE, GEORGIA



AIRPORT DIAGRAM

10210

LAWRENCEVILLE, GEORGIA
LAWRENCEVILLE/GWINNETT COUNTY-BRISCOE FIELD (LZU)

SE. 23 SEP 2010 to 18 NOV 2010

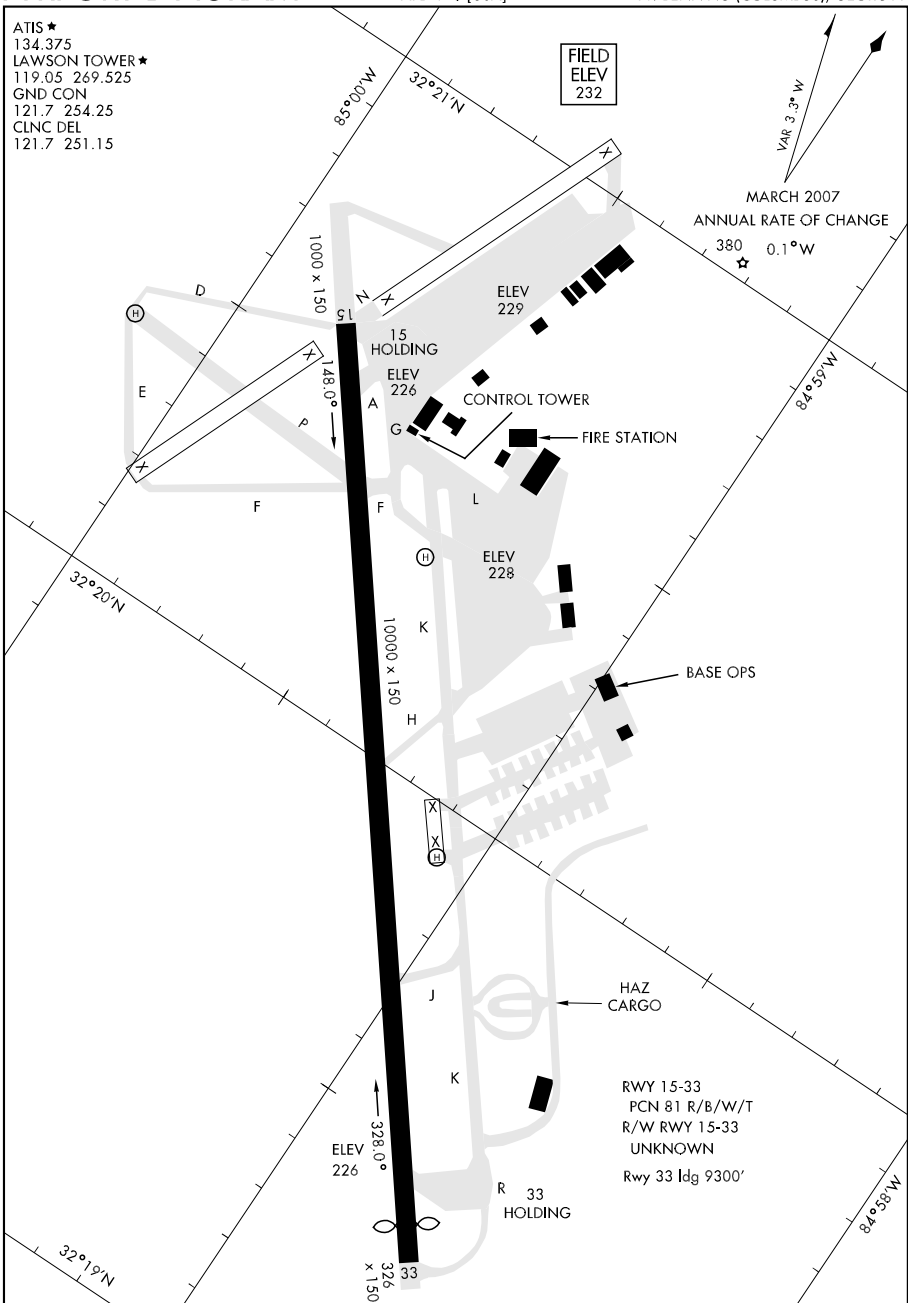
07074

AIRPORT DIAGRAM

AFD-146 [USA]

LAWSON AAF (KLSF)
FT. BENNING (COLUMBUS), GEORGIA

ATIS ★
134.375
LAWSON TOWER ★
119.05 269.525
GND CON
121.7 254.25
CLNC DEL
121.7 251.15



AIRPORT DIAGRAM

FT. BENNING (COLUMBUS), GEORGIA
LAWSON AAF (KLSF)

SE. 23 SEP 2010 to 18 NOV 2010

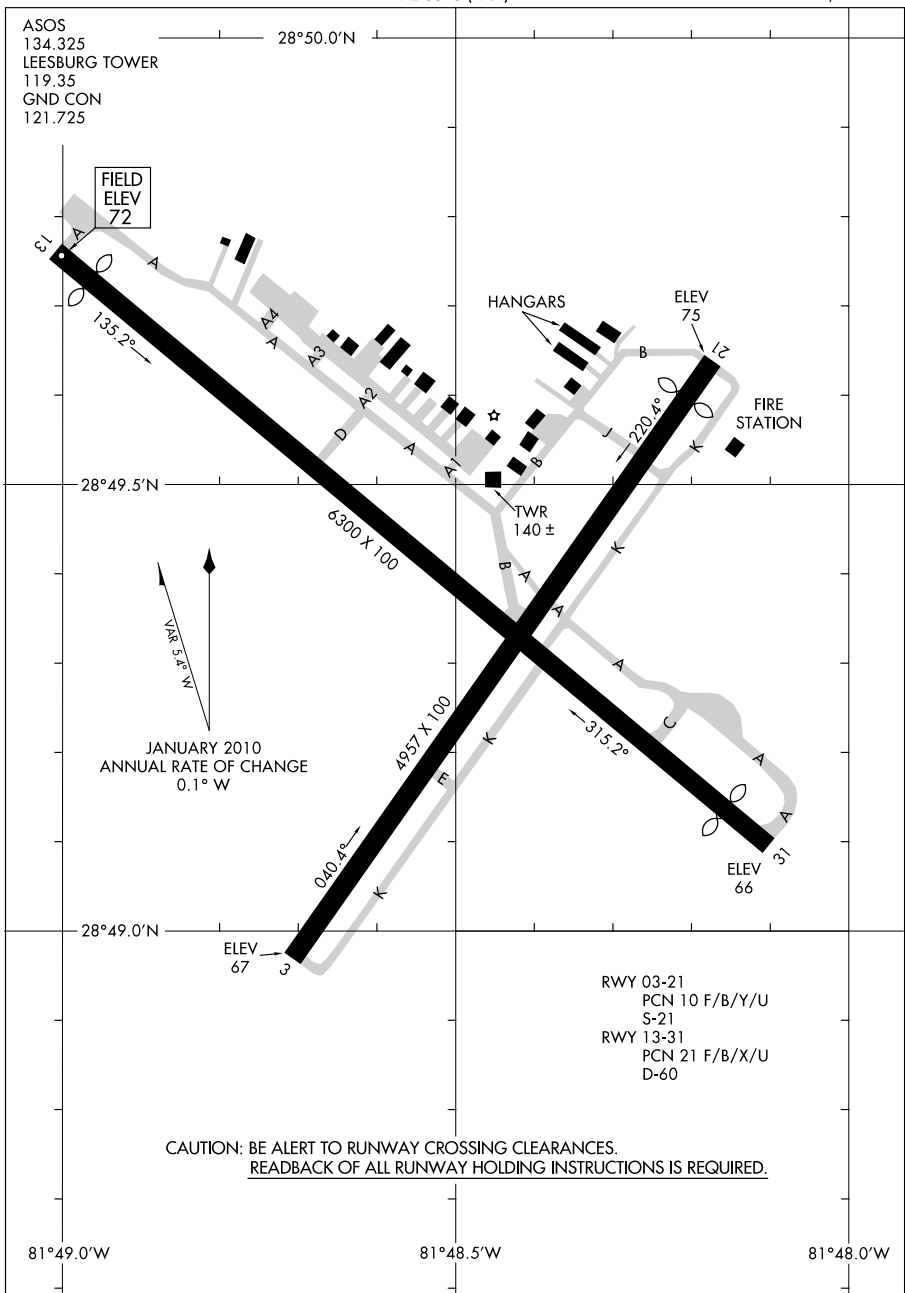
10266

AIRPORT DIAGRAM

AL-6676 (FAA)

LEESBURG INTL (LEE)

LEESBURG, FLORIDA



AIRPORT DIAGRAM

10266

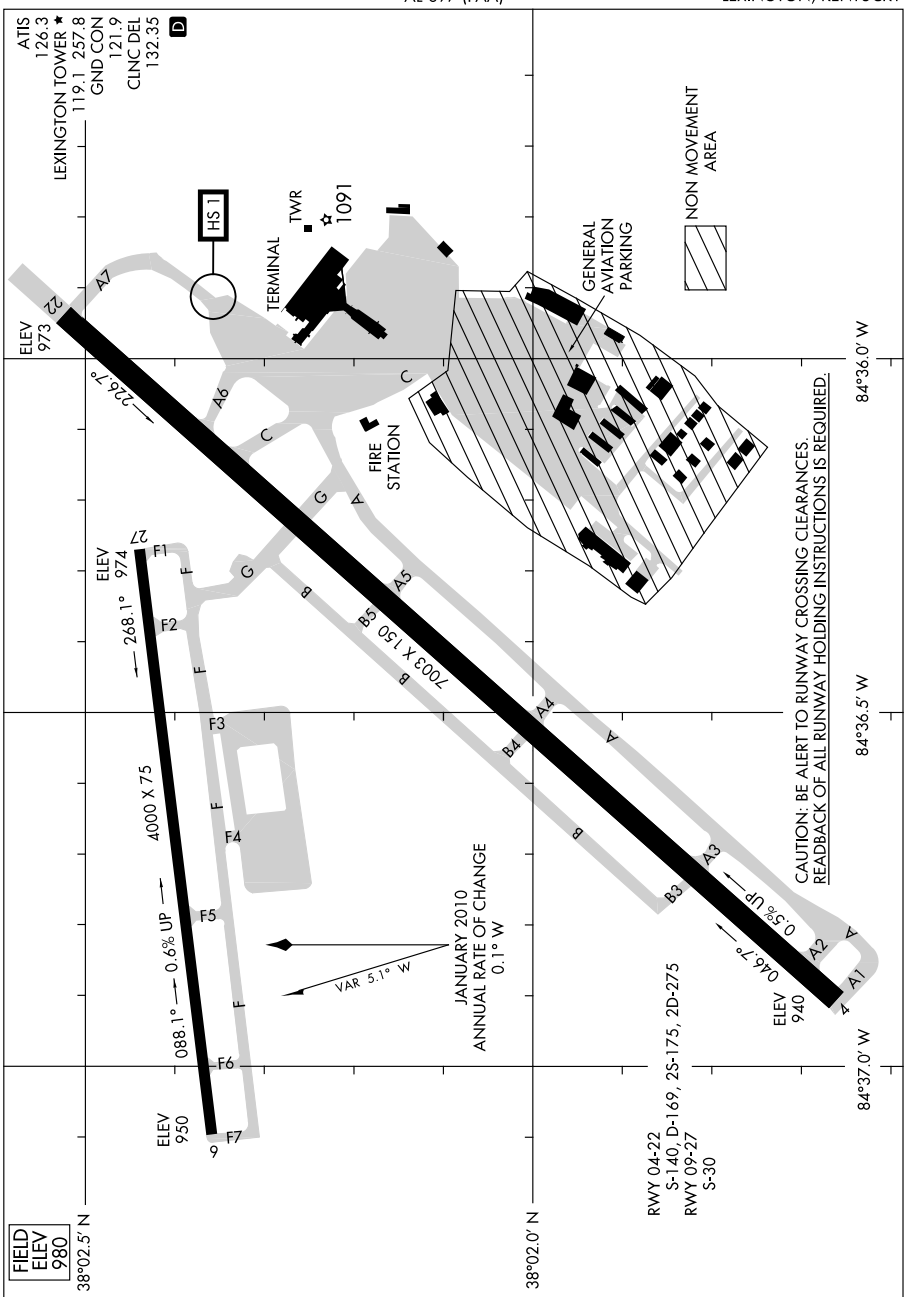
LEESBURG, FLORIDA

LEESBURG INTL (LEE)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

LEXINGTON /BLUE GRASS (LEX)
LEXINGTON, KENTUCKY



AIRPORT DIAGRAM

LEXINGTON, KENTUCKY
LEXINGTON / BLUE GRASS (LEX)

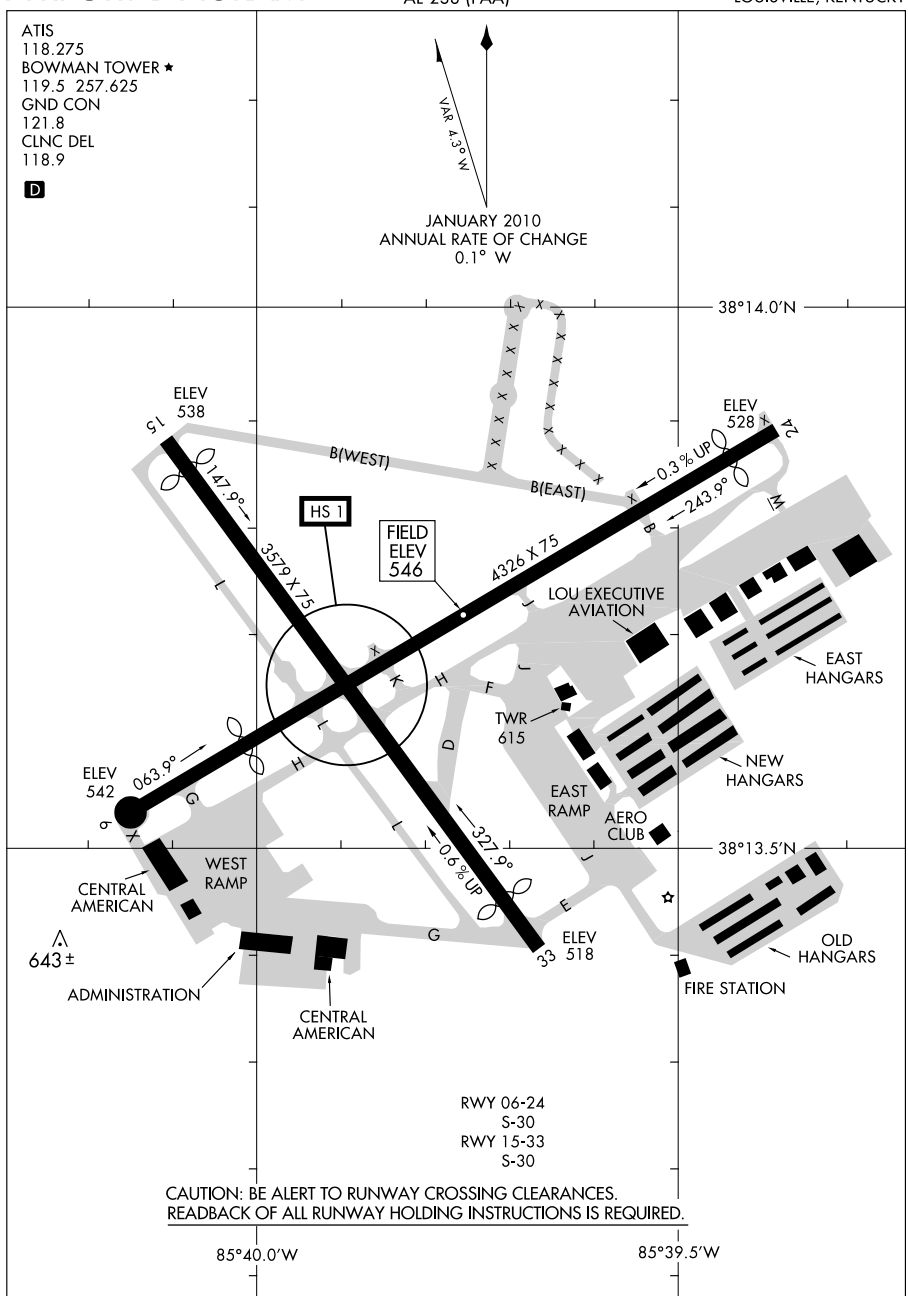
10266

SE, 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

LOUISVILLE/BOWMAN FIELD (LOU)

LOUISVILLE, KENTUCKY



AIRPORT DIAGRAM

LOUISVILLE, KENTUCKY
LOUISVILLE/BOWMAN FIELD (LOU)

10210

AIRPORT DIAGRAM

AL-239 (FAA)

LOUISVILLE INTL-STANDIFORD FIELD (SDF)

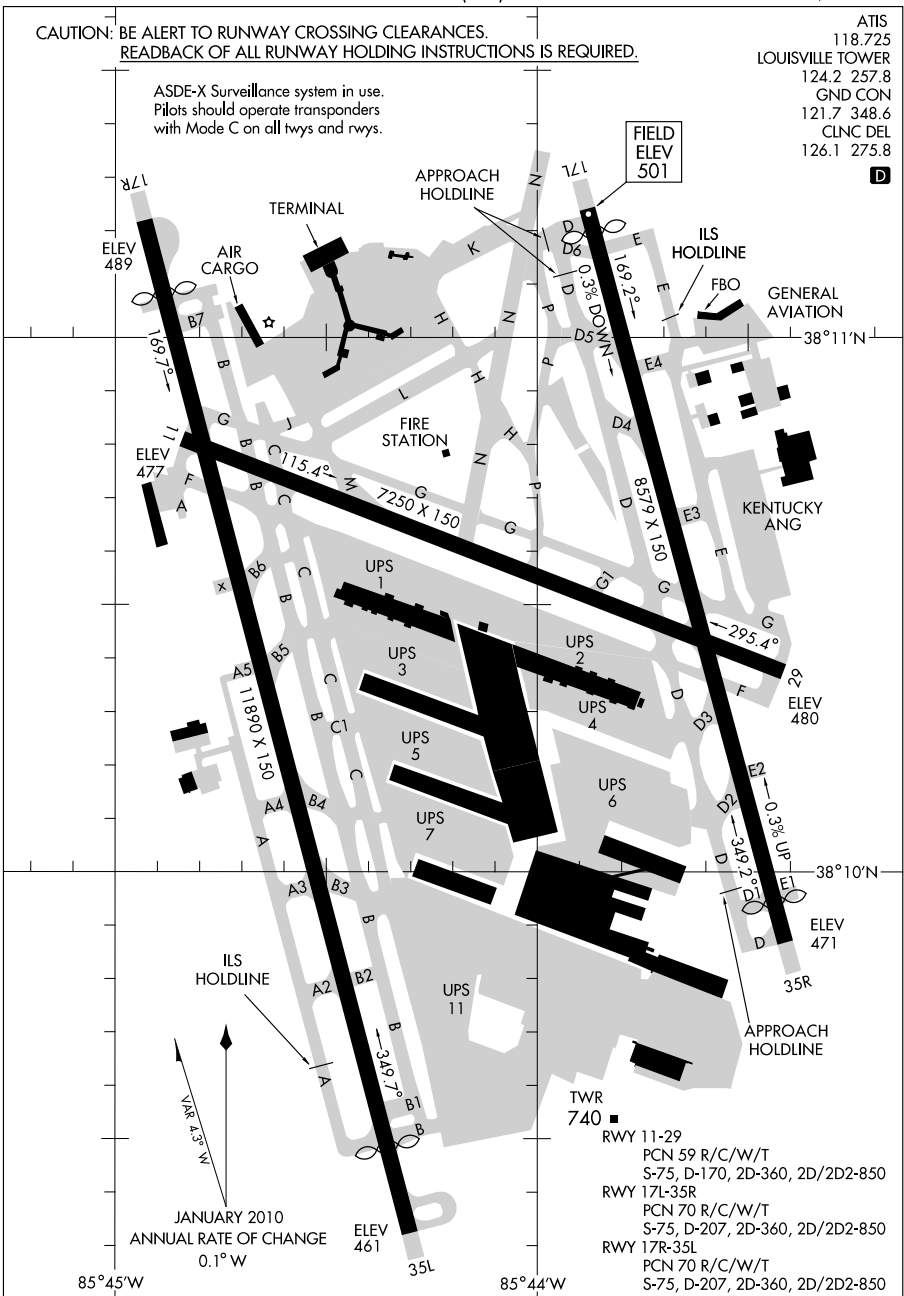
LOUISVILLE, KENTUCKY

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
REDBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

ASDE-X Surveillance system in use.
Pilots should operate transponders
with Mode C on all twys and rwys.

ATIS
118.725
LOUISVILLE TOWER
124.2 257.8
GND CON
121.7 348.6
CLNC DEL
126.1 275.8

D



AIRPORT DIAGRAM

10210

LOUISVILLE, KENTUCKY
LOUISVILLE INTL-STANDIFORD FIELD (SDF)

SE. 23 SEP 2010 to 18 NOV 2010

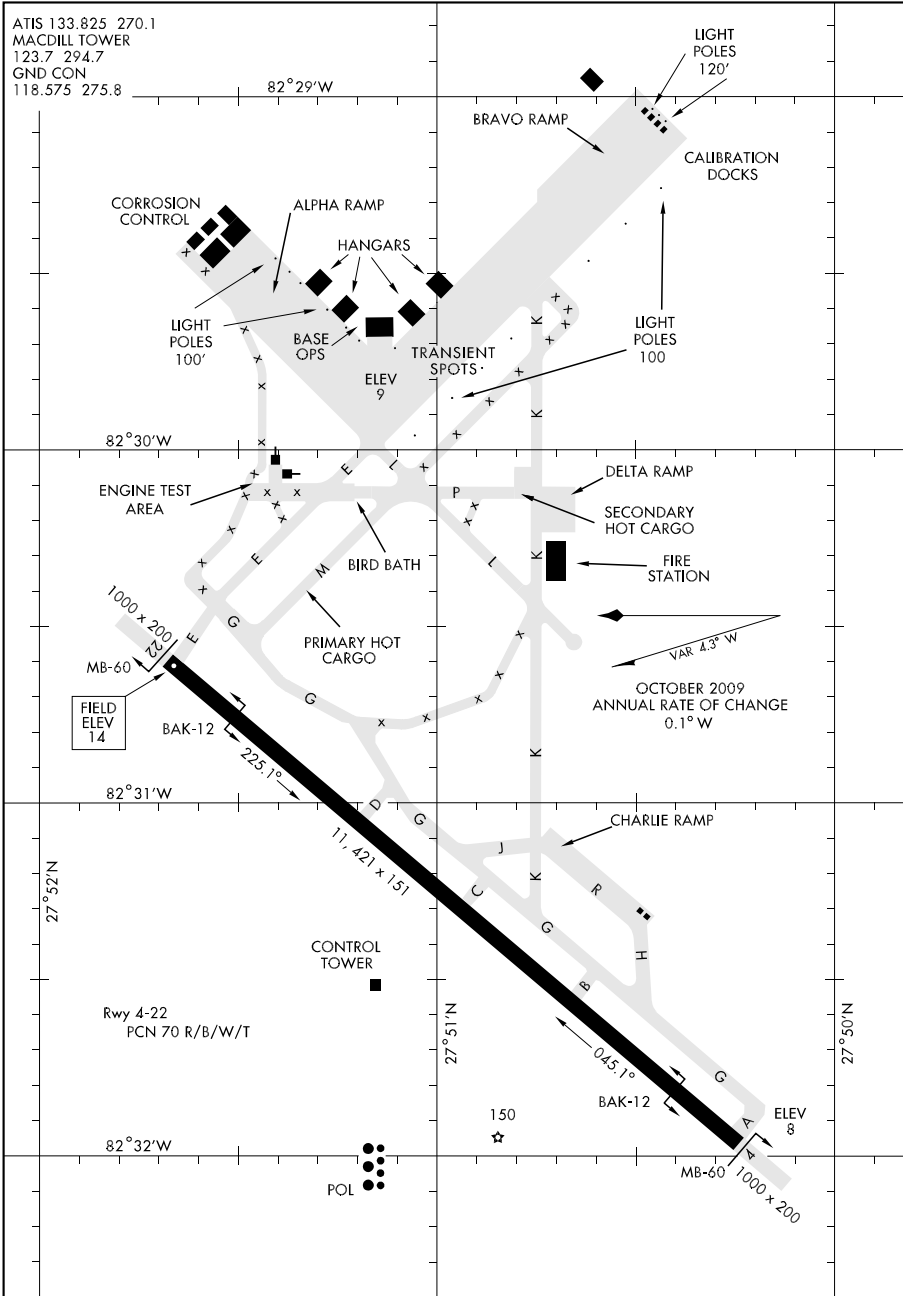
09295

MACDILL AFB (KMCF)

AIRPORT DIAGRAM

AFD-418 [USAF]

TAMPA, FLORIDA



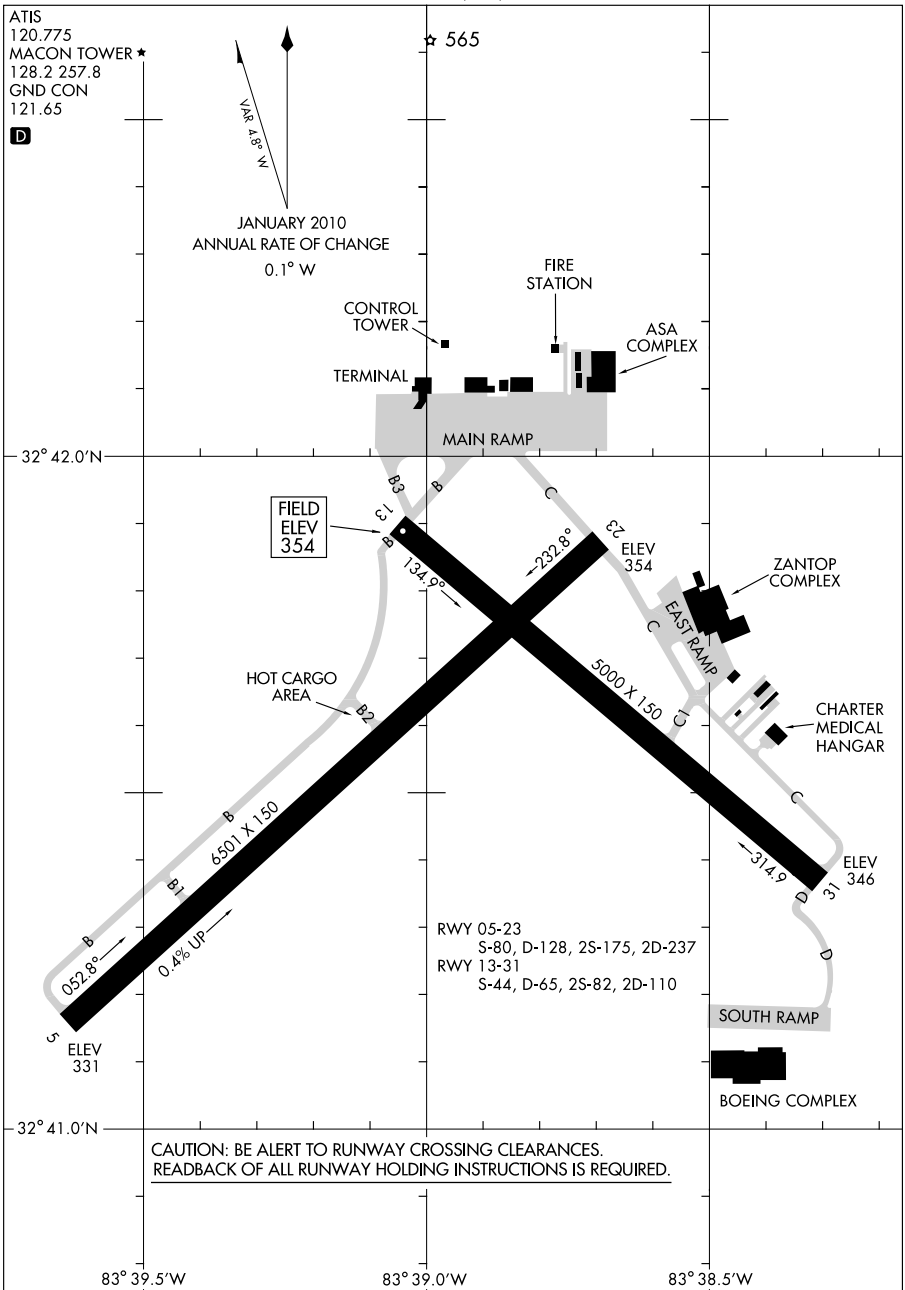
AIRPORT DIAGRAM

TAMPA, FLORIDA
MACDILL AFB (KMCF)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

MACON/ MIDDLE GEORGIA RGNL (MCN)
AL-243 (FAA)
MACON, GEORGIA

AIRPORT DIAGRAM

10210

MACON, GEORGIA
MACON/ MIDDLE GEORGIA RGNL (MCN)

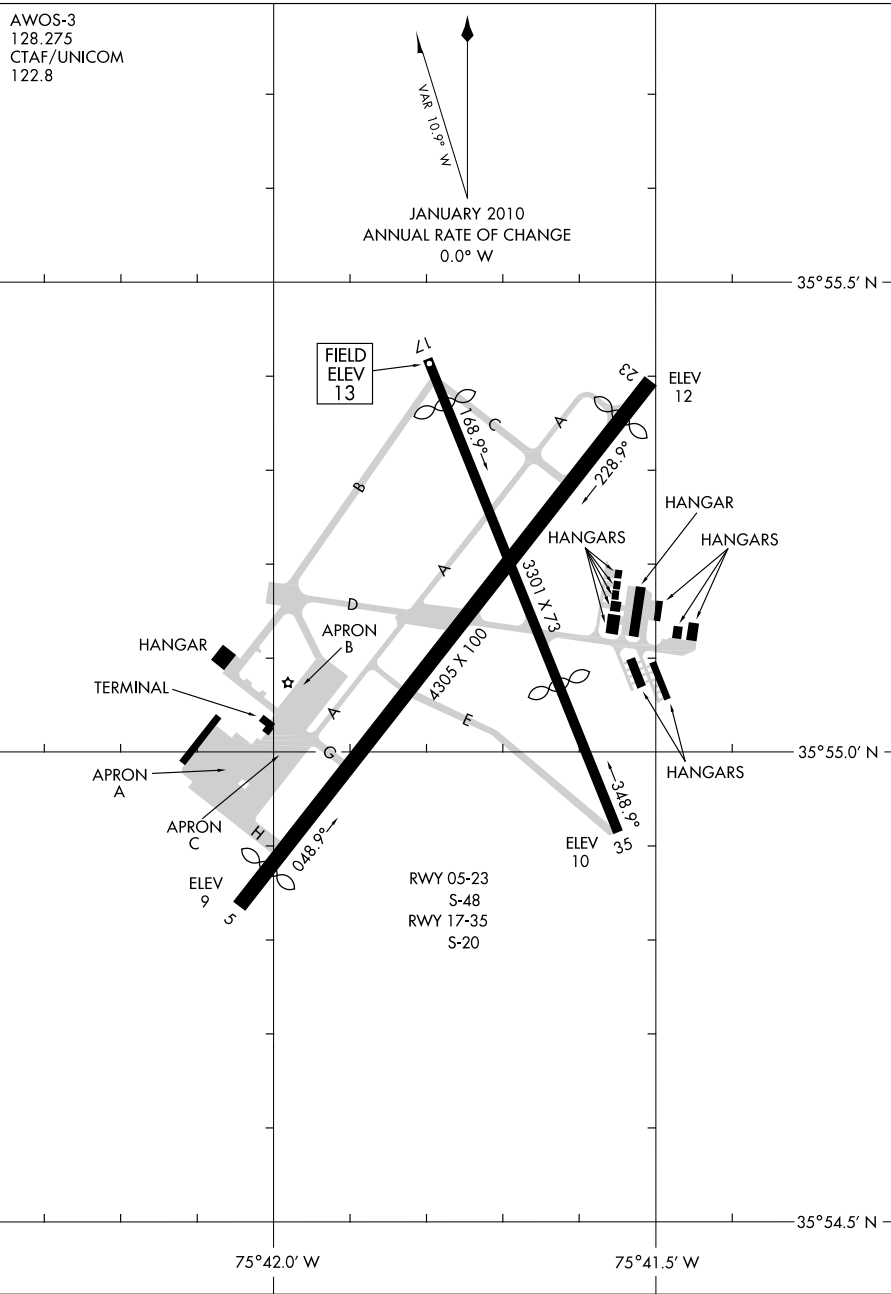
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AWOS-3
128.275
CTAF/UNICOM
122.8

MANTEO/ DARE COUNTY RGNL (MQI)
MANTEO, NORTH CAROLINA



10210

AIRPORT DIAGRAM

MANTEO, NORTH CAROLINA
MANTEO/ DARE COUNTY RGNL (MQI)

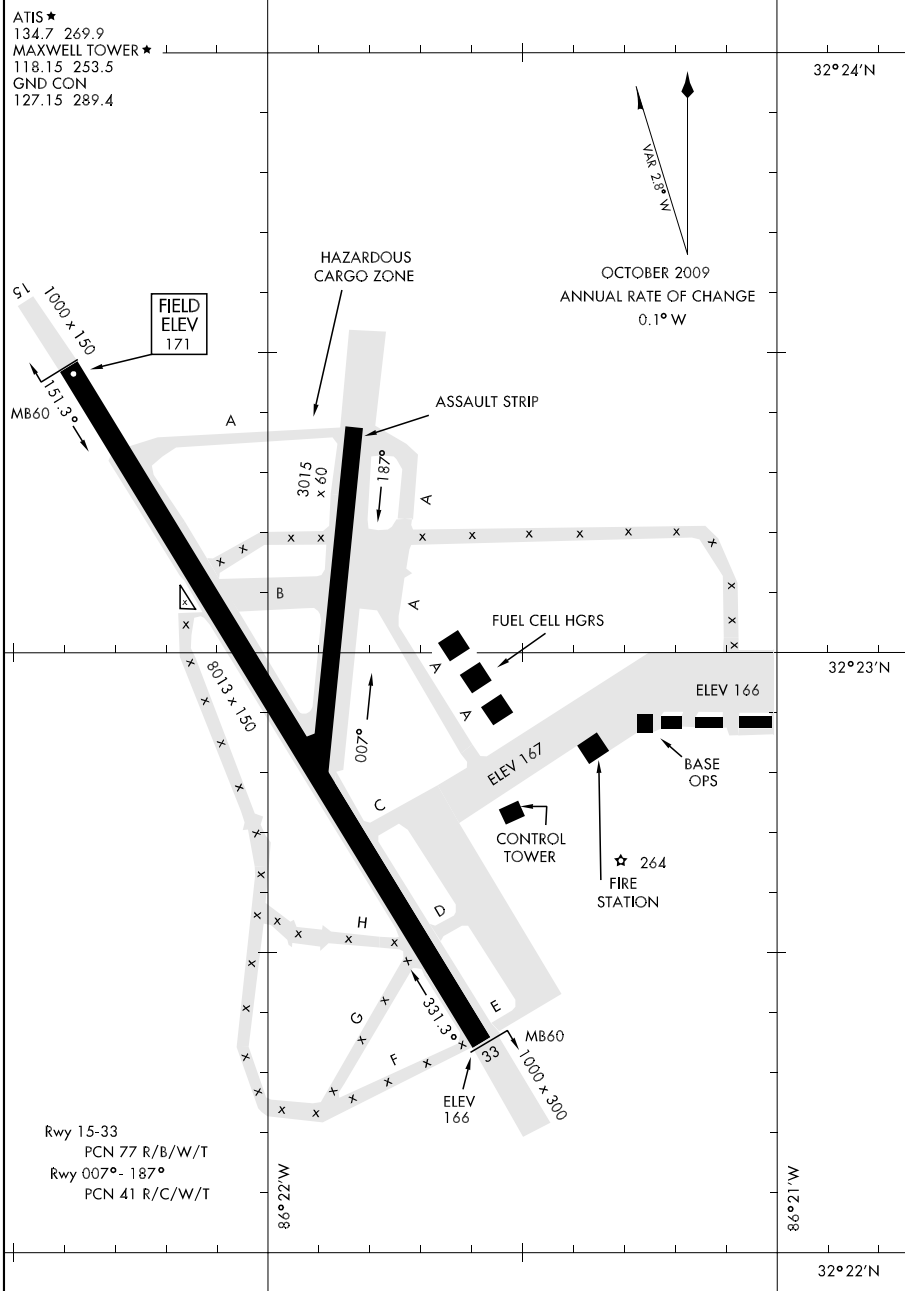
09295

AIRPORT DIAGRAM

AFD-274 [USAF]

MAXWELL AFB (KMXF)

MONTGOMERY, ALABAMA



AIRPORT DIAGRAM

MONTGOMERY, ALABAMA

MAXWELL AFB (KMXF)

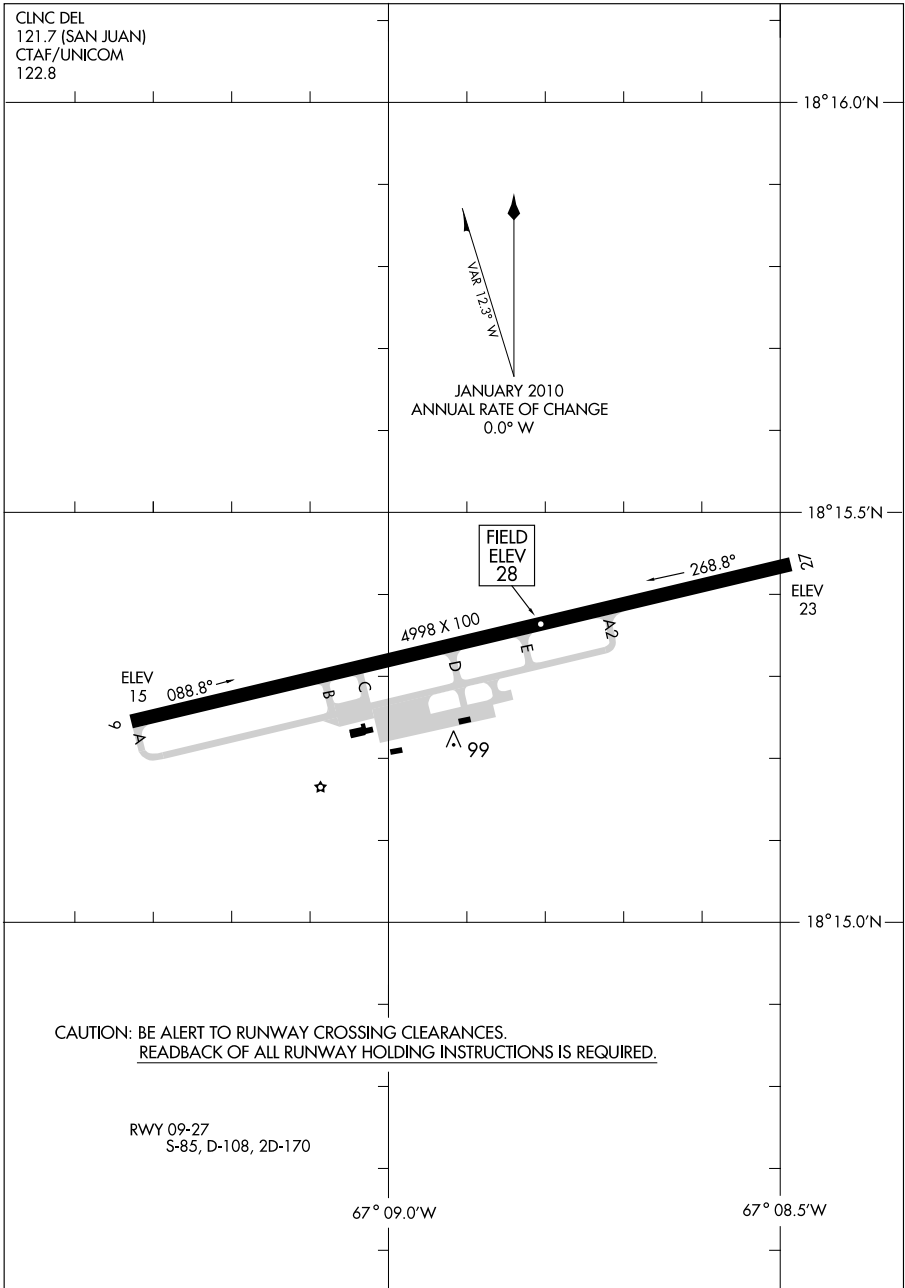
10210

AIRPORT DIAGRAM

MAYAGUEZ/EUGENIO MARIA DE HOSTOS (MAZ)(TJMZ)

AL-5328 (FAA)

MAYAGUEZ, PUERTO RICO



AIRPORT DIAGRAM

10210

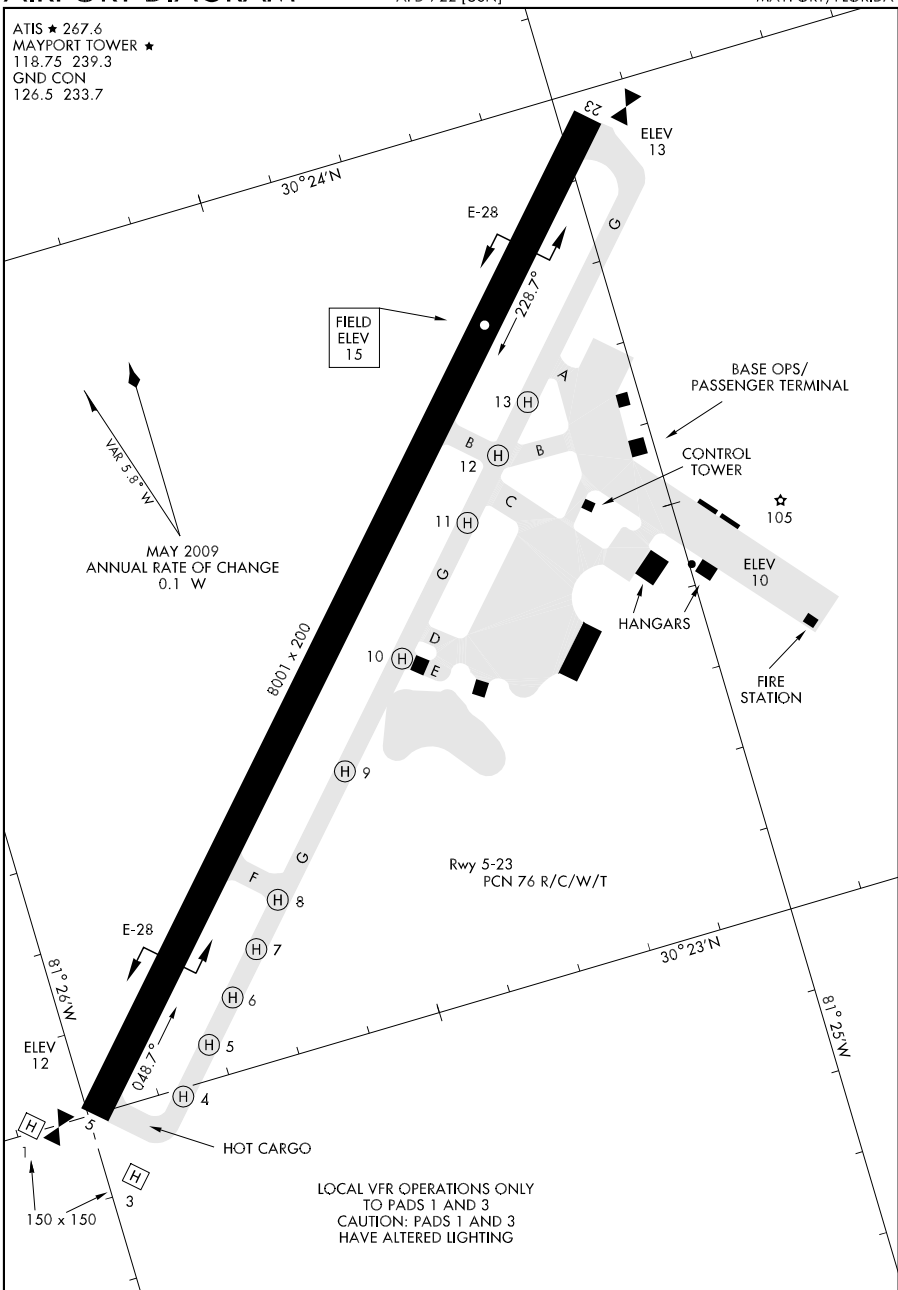
MAYAGUEZ/EUGENIO MARIA DE HOSTOS (MAZ)(TJMZ)

MAYAGUEZ, PUERTO RICO

AIRPORT DIAGRAM

MAYPORT, FLORIDA

ATIS ★ 267.6
 MAYPORT TOWER ★
 118.75 239.3
 GND CON
 126.5 233.7



AIRPORT DIAGRAM

MAYPORT NS (ADM DAVID L. MCDONALD FLD) (KNRB)

SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

AFD-951 [USAF]

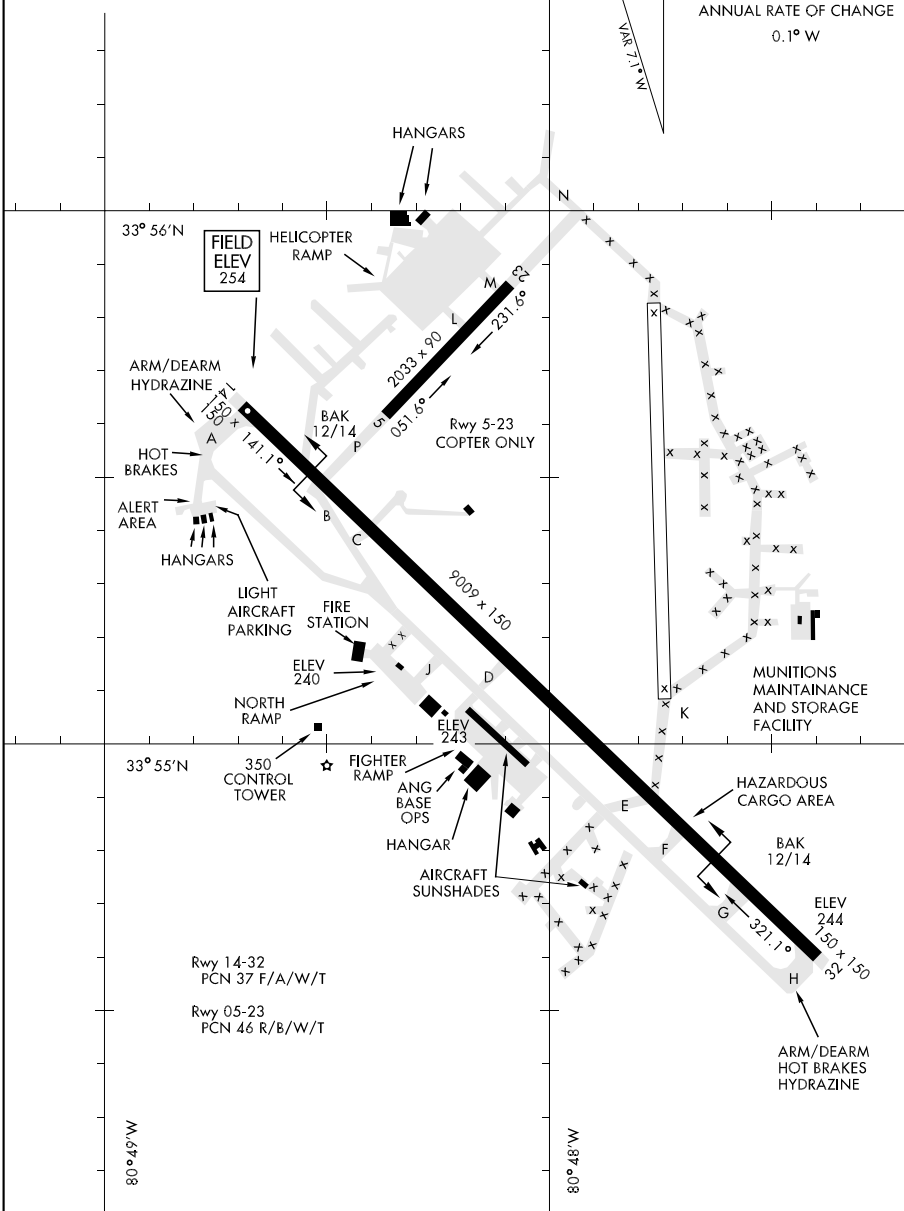
MC ENTIRE JNGB (KMMT)

EASTOVER, SOUTH CAROLINA

MC ENTIRE TOWER ★
132.4 253.5
GND CON
127.625 226.675

SEPTEMBER 2010

ANNUAL RATE OF CHANGE
0.1° W

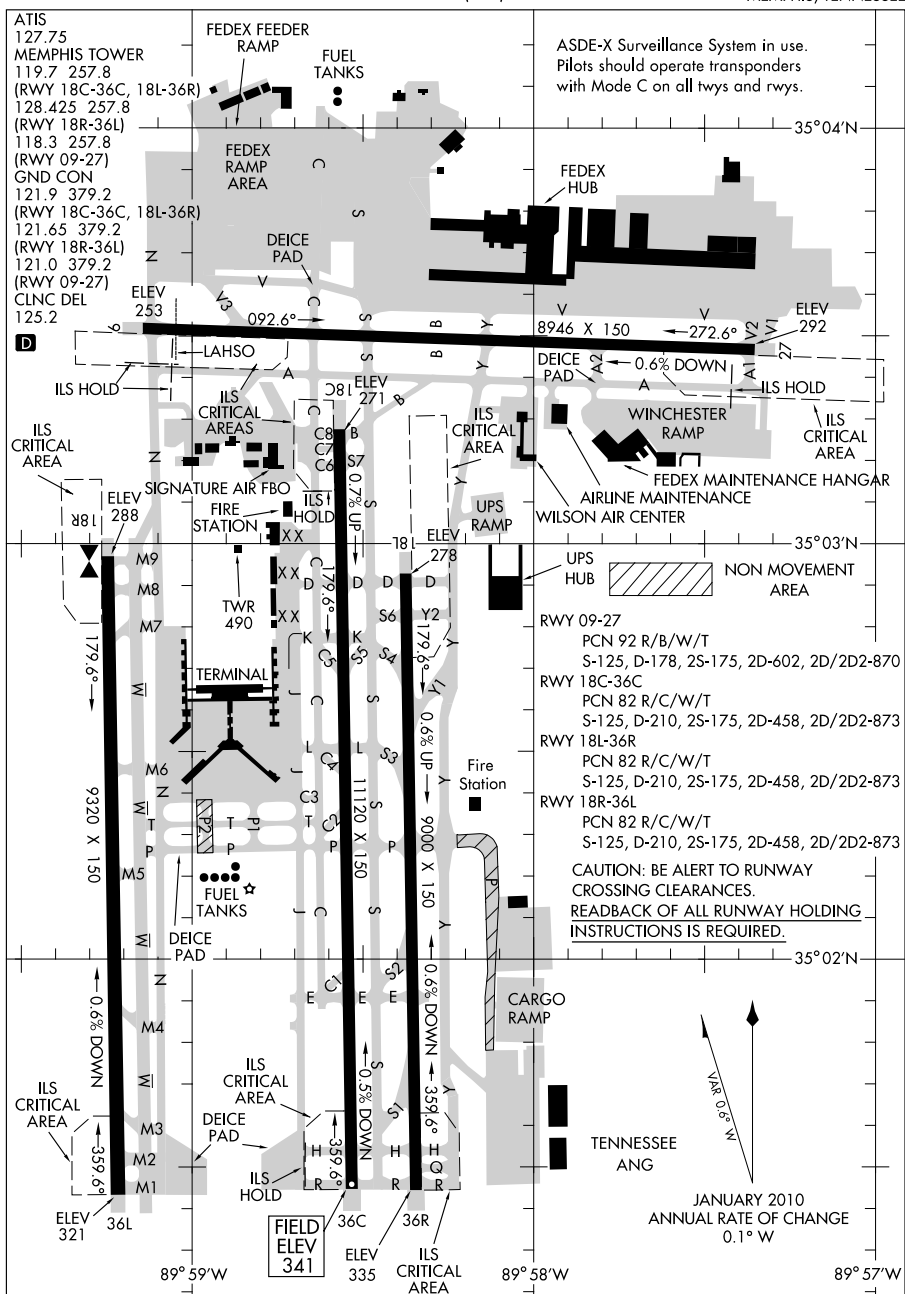


AIRPORT DIAGRAM

EASTOVER, SOUTH CAROLINA

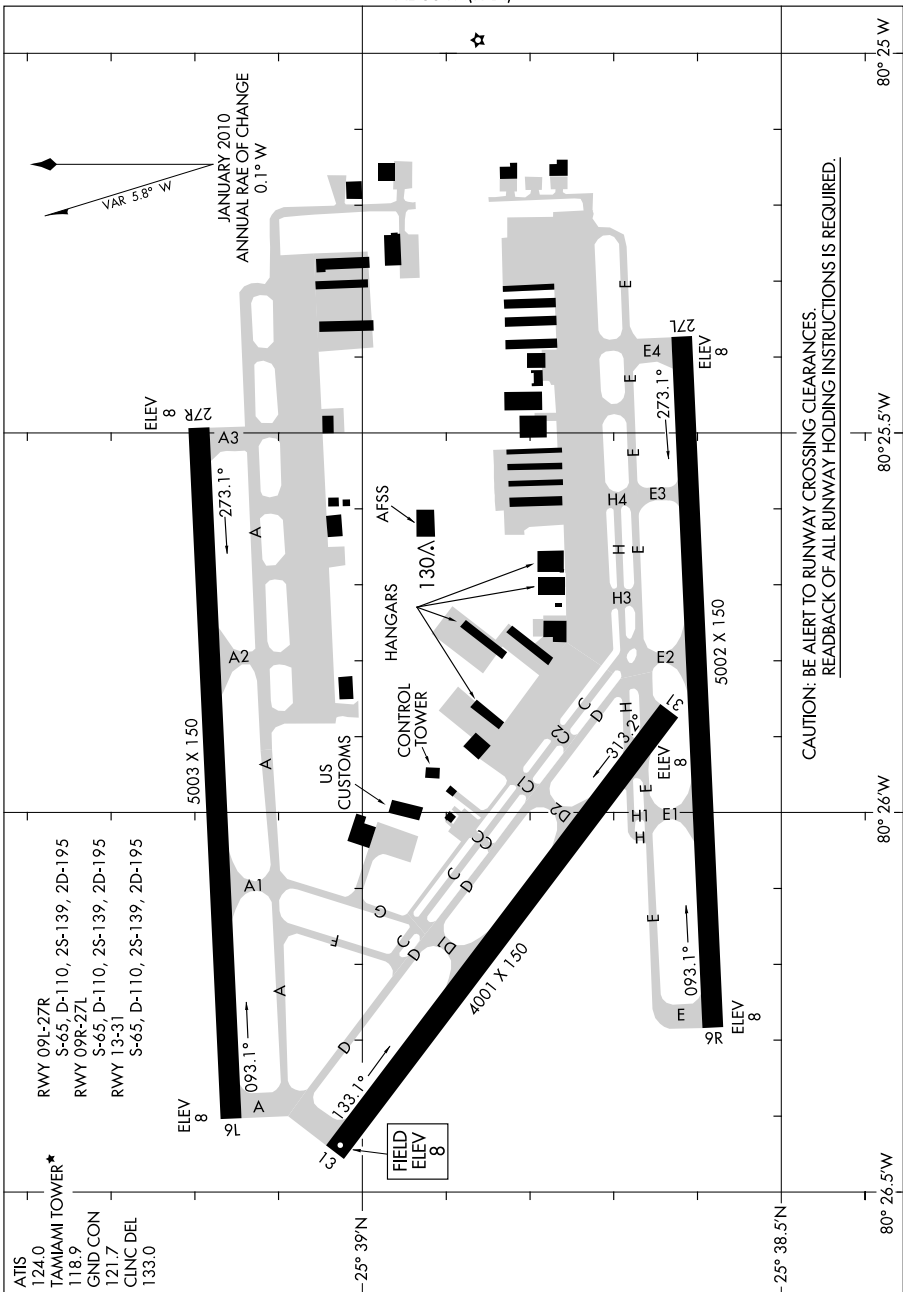
MC ENTIRE JNGB (KMMT)

SE. 23 SEP 2010 to 18 NOV 2010



10210
AIRPORT DIAGRAM

MIAMI/KENDALL-TAMIAMI EXECUTIVE (TMB)
AL-5349 (FAA) MIAMI, FLORIDA



AIRPORT DIAGRAM

MIAMI, FLORIDA
MIAMI/KENDALL-TAMIAMI EXECUTIVE (TMB)

AL-257 (FAA)

MIAMI, FLORIDA
MIAMI INTL (MIA)

SE, 23 SEP 2010 to 18 NOV 2010

MIAMI/OPA LOCKA EXECUTIVE (OPF)
MIAMI, FLORIDA

ATIS
 125.9
 OPA LOCKA TOWER ★
 120.7 360.8
 GND CON
 121.9 336.4
 CLNC DEL
 119.2

D

NON MOVEMENT
AREA

VAR 5.9° W
JANUARY 2010
ANNUAL RATE OF CHANGE
0.1° W

RWY 09L-27R
S-96, D-155, 2S-175, 2D-290
RWY 09R-27L
S-37, D-61
RWY 12-30
S-96, D-200, 2S-175

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

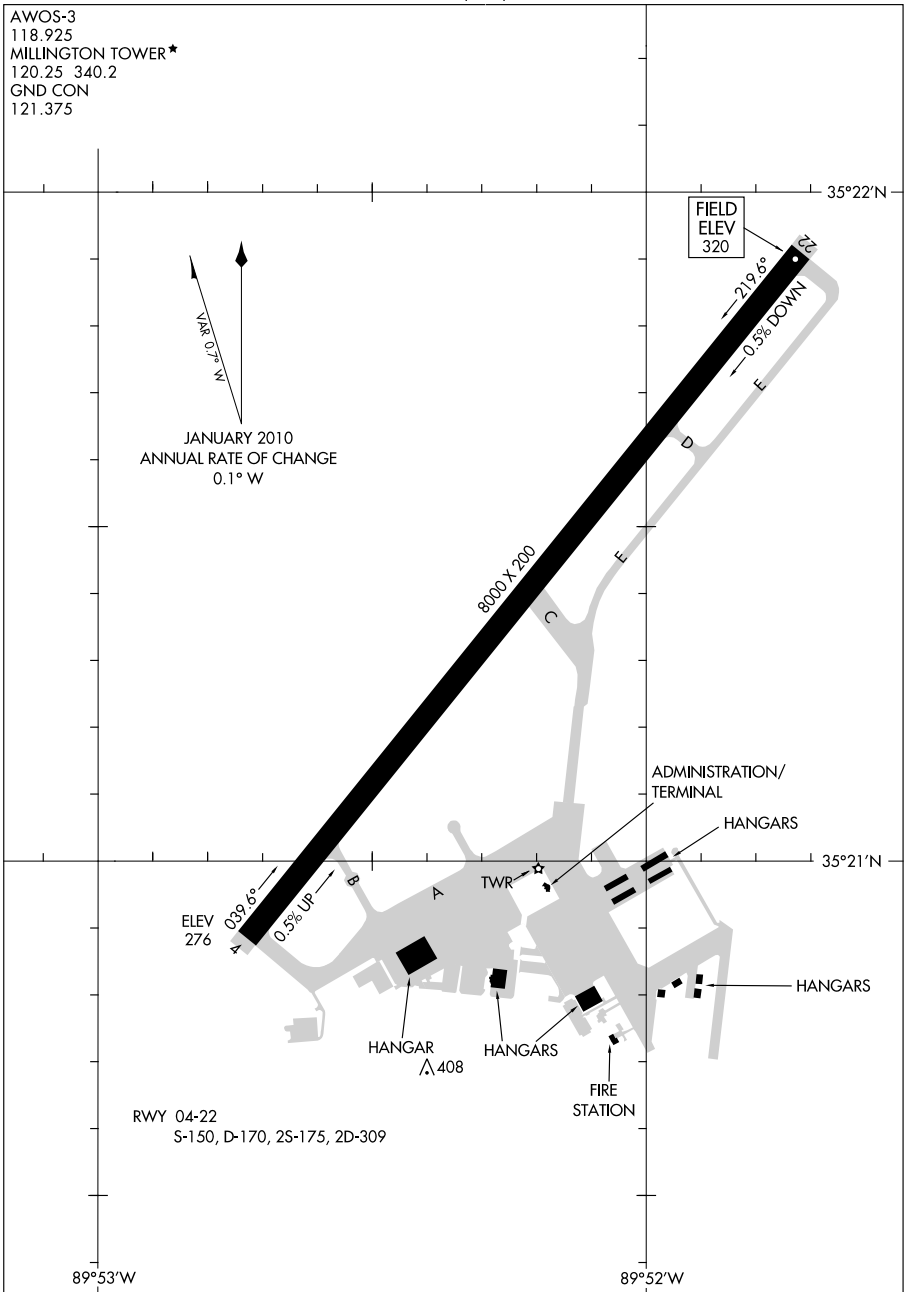
MIAMI, FLORIDA
MIAMI/OPA LOCKA EXECUTIVE (OPF)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-910 (FAA)

MILLINGTON RGNL JETPORT (NQA)
MILLINGTON, TENNESSEE



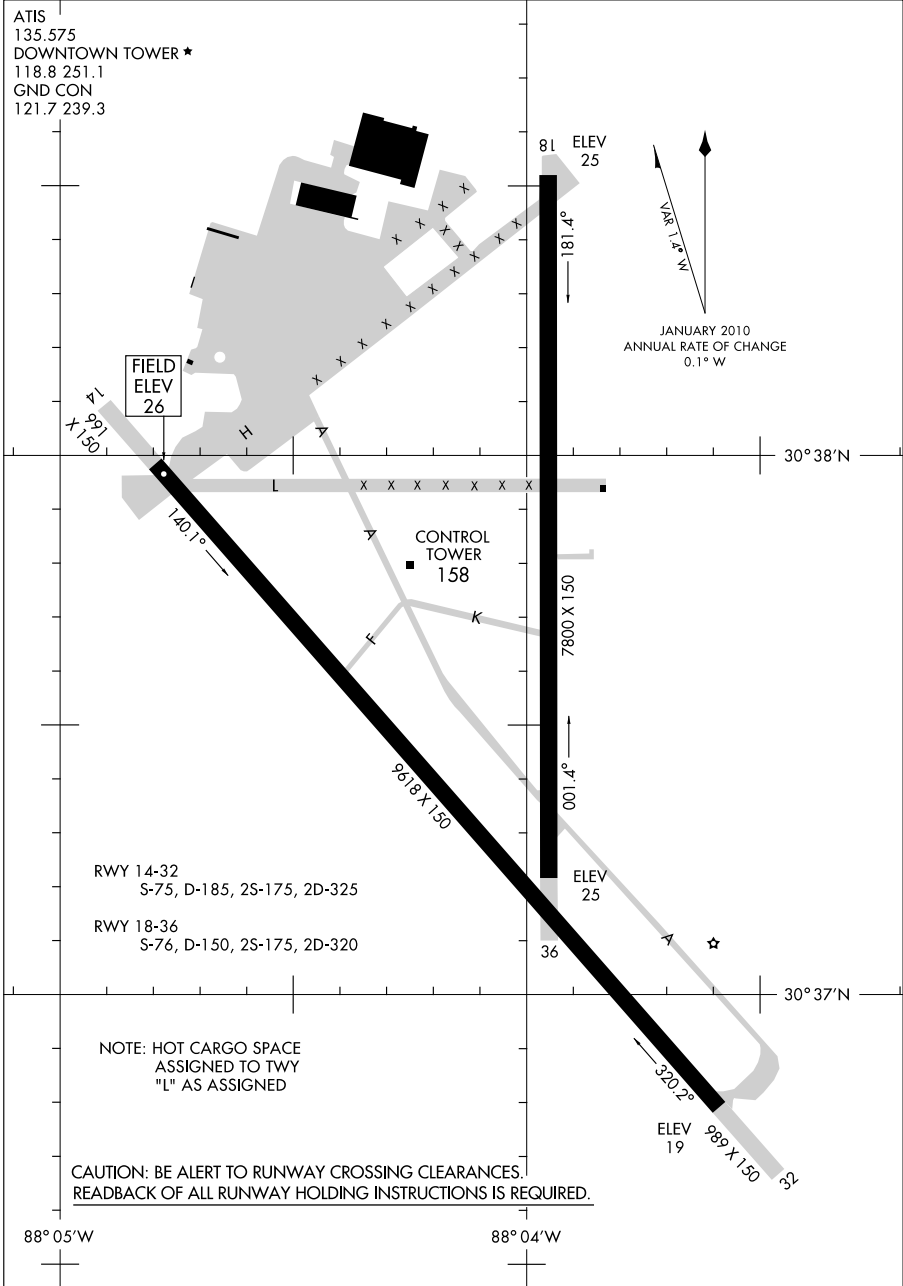
AIRPORT DIAGRAM

MILLINGTON, TENNESSEE
MILLINGTON RGNL JETPORT (NQA)

10210

AIRPORT DIAGRAM

AL-268 (FAA)

MOBILE DOWNTOWN (BFM)
MOBILE, ALABAMA

AIRPORT DIAGRAM

10210

MOBILE, ALABAMA
MOBILE DOWNTOWN (BFM)

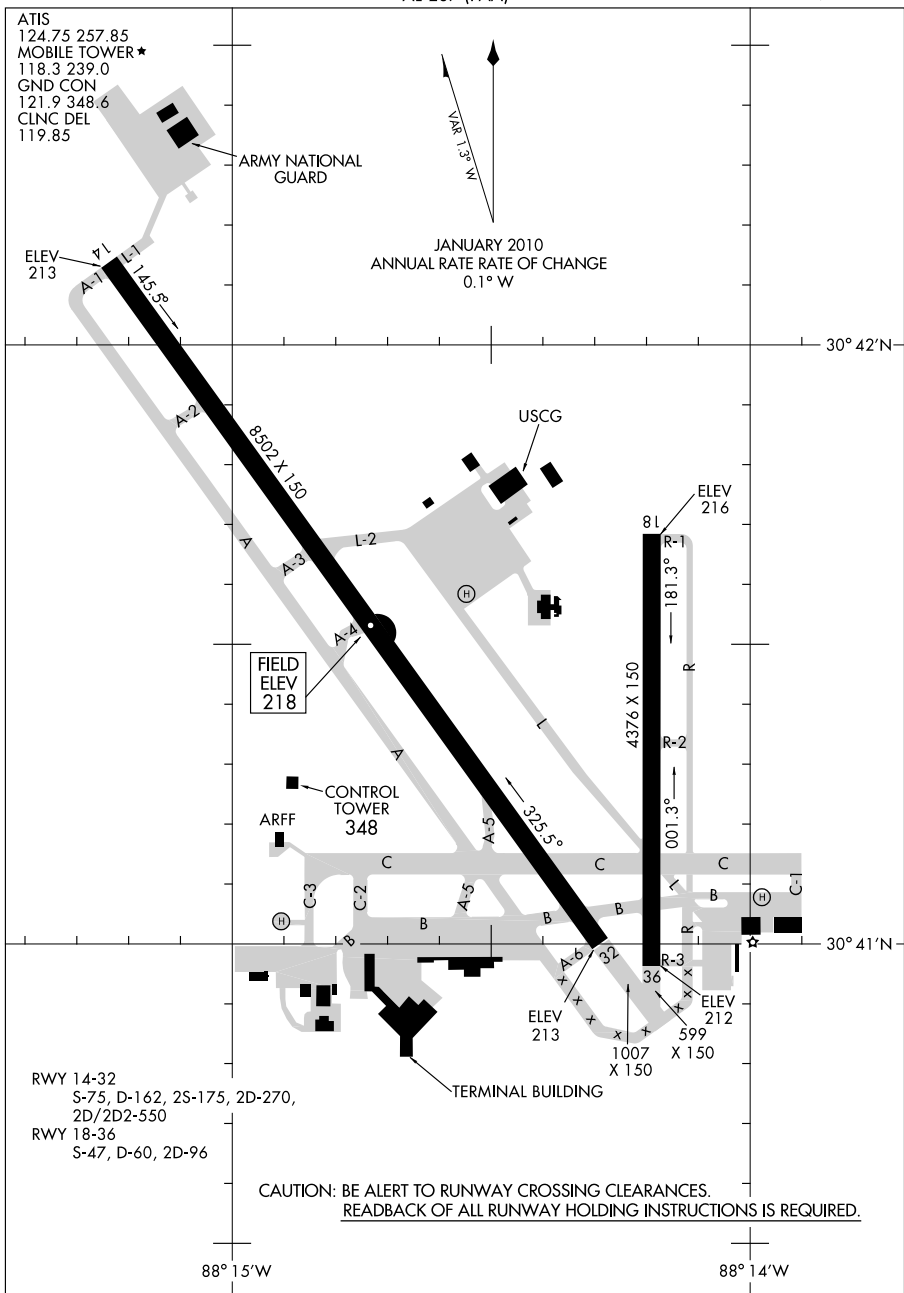
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-267 (FAA)

MOBILE RGNL (MOB)
MOBILE, ALABAMA



AIRPORT DIAGRAM

10210

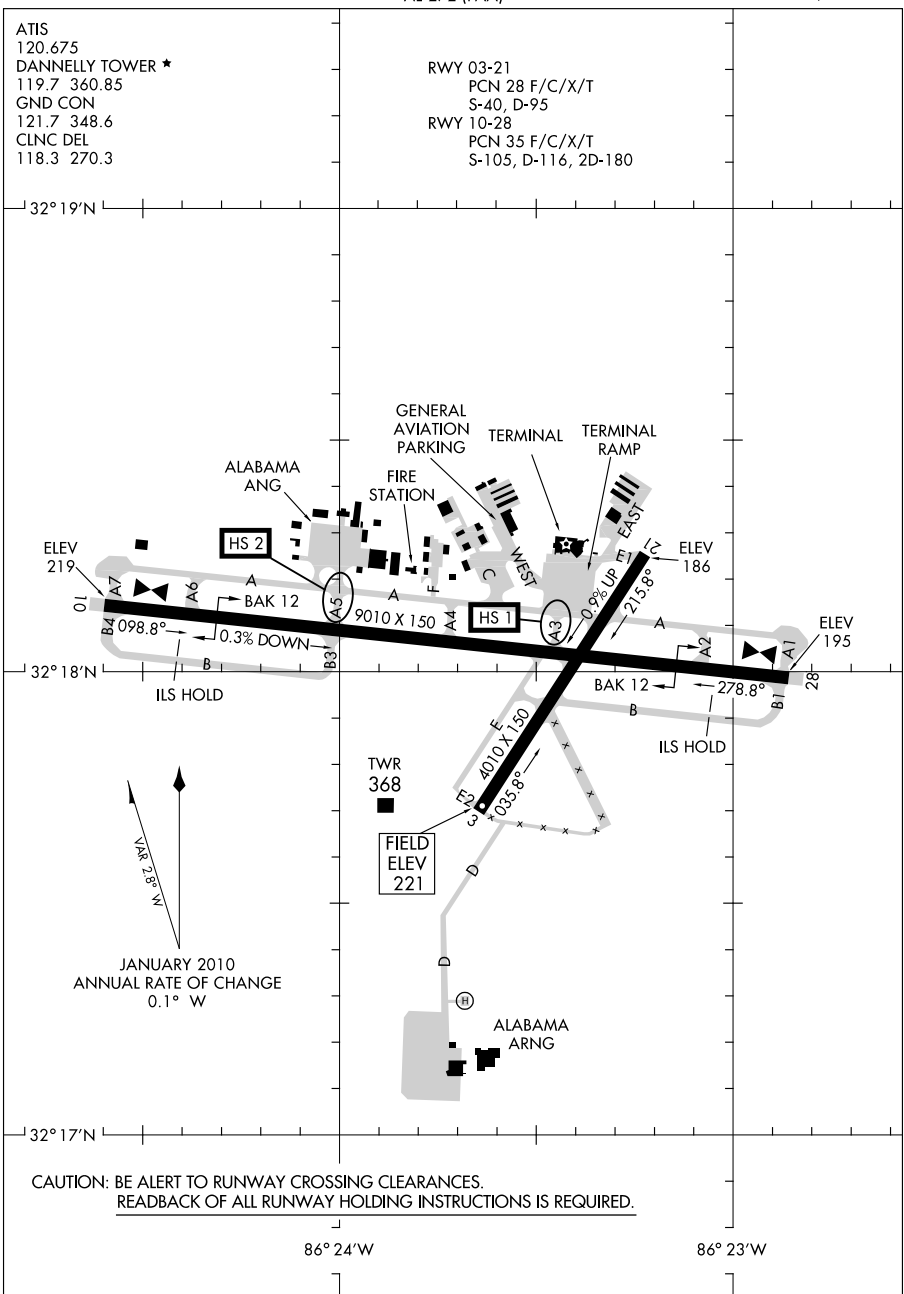
MOBILE, ALABAMA
MOBILE RGNL (MOB)

SE, 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

MONTGOMERY RGNL (DANNELLY FIELD)(MGM)
MONTGOMERY, ALABAMA



AIRPORT DIAGRAM

MONTGOMERY, ALABAMA
MONTGOMERY RGNL (DANNELLY FIELD)(MGM)

10266

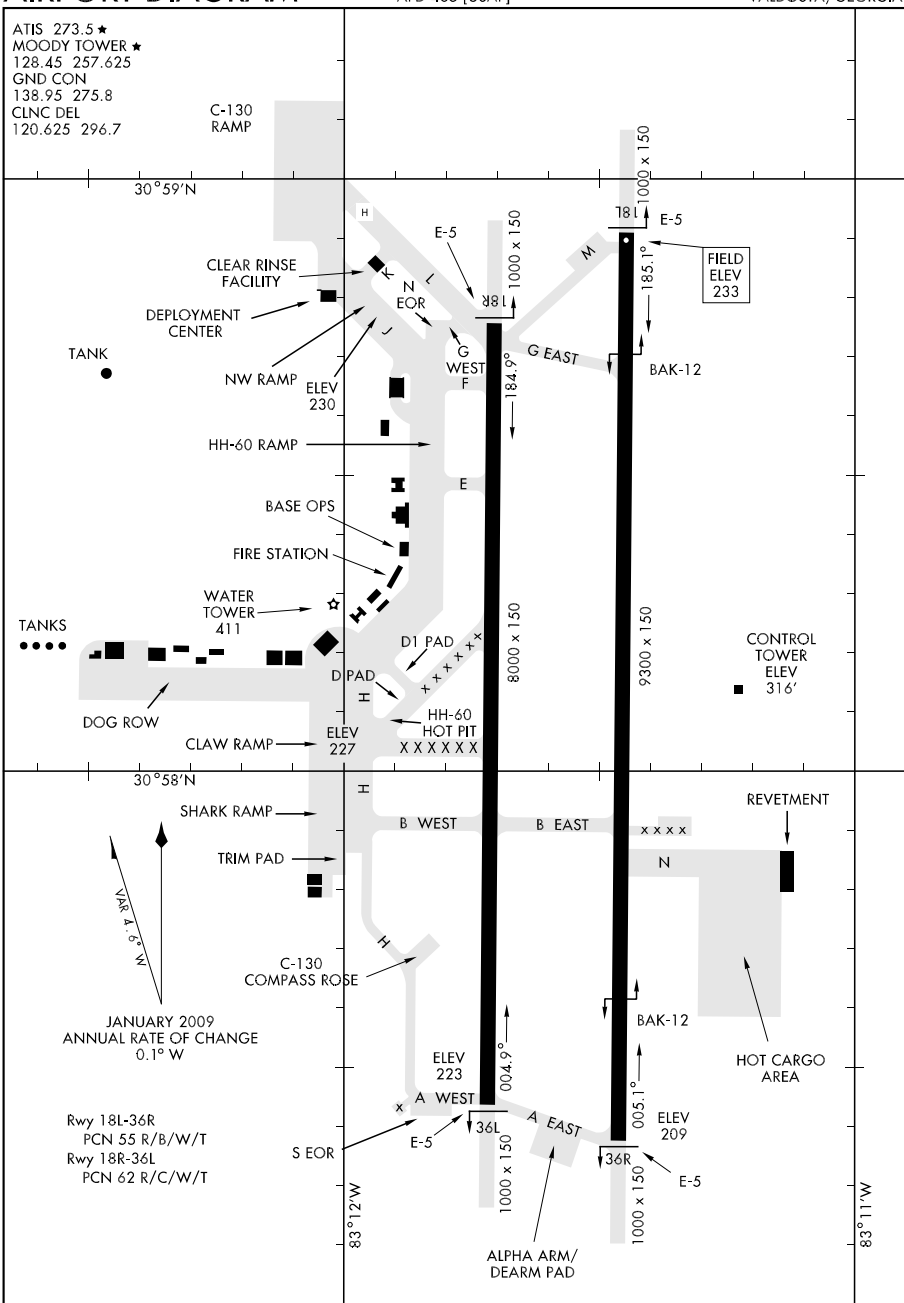
09015

MOODY AFB (KVAD)

AIRPORT DIAGRAM

AFD-435 [USAF]

VALDOSTA, GEORGIA



AIRPORT DIAGRAM

VALDOSTA, GEORGIA

MOODY AFB (KVAD)

SE, 23 SEP 2010 to 18 NOV 2010

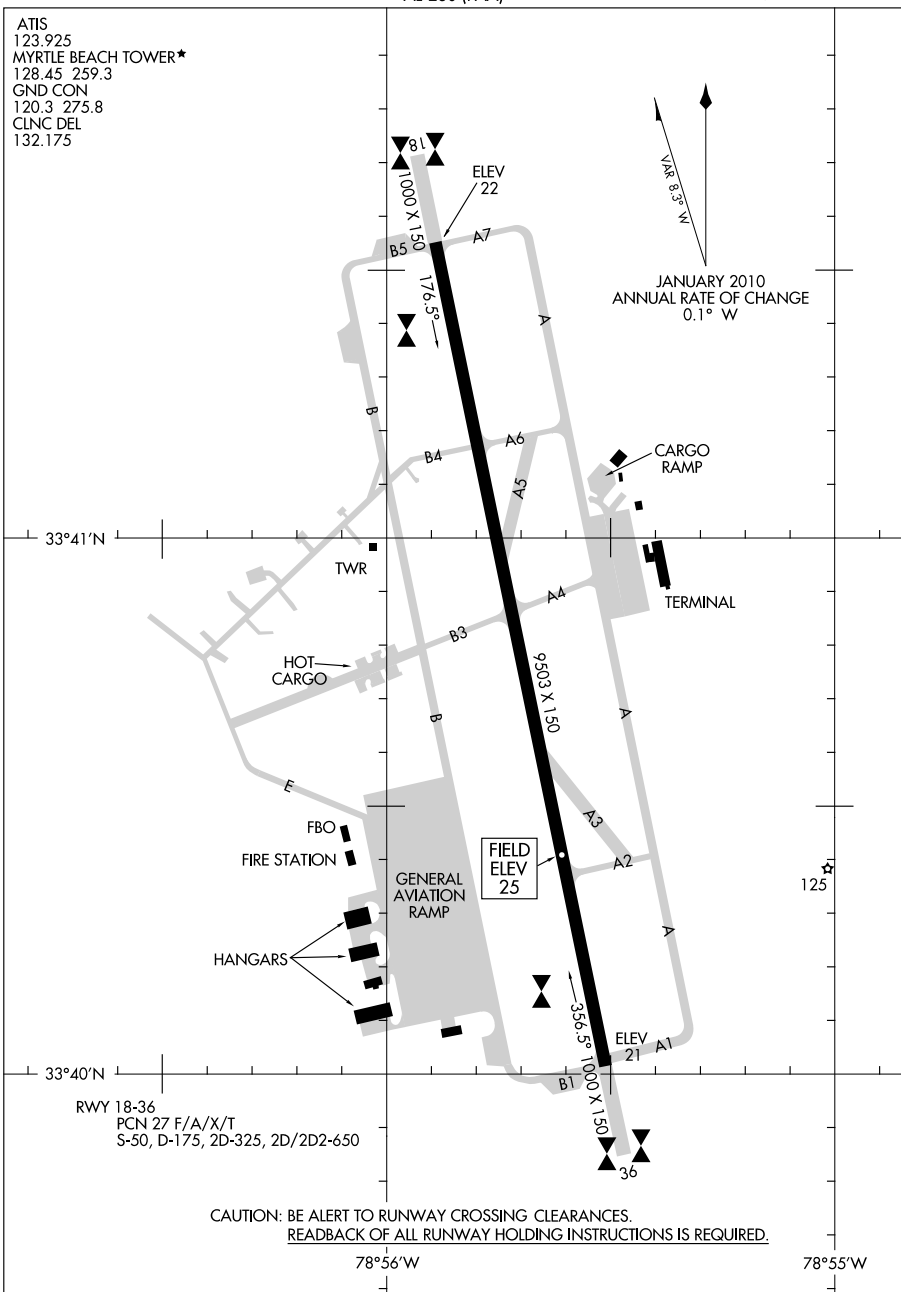
10210

AIRPORT DIAGRAM

AL-280 (FAA)

MYRTLE BEACH INTL (MYR)
MYRTLE BEACH, SOUTH CAROLINA

ATIS
123.925
MYRTLE BEACH TOWER★
128.45 259.3
GND CON
120.3 275.8
CLNC DEL
132.175



AIRPORT DIAGRAM

10210

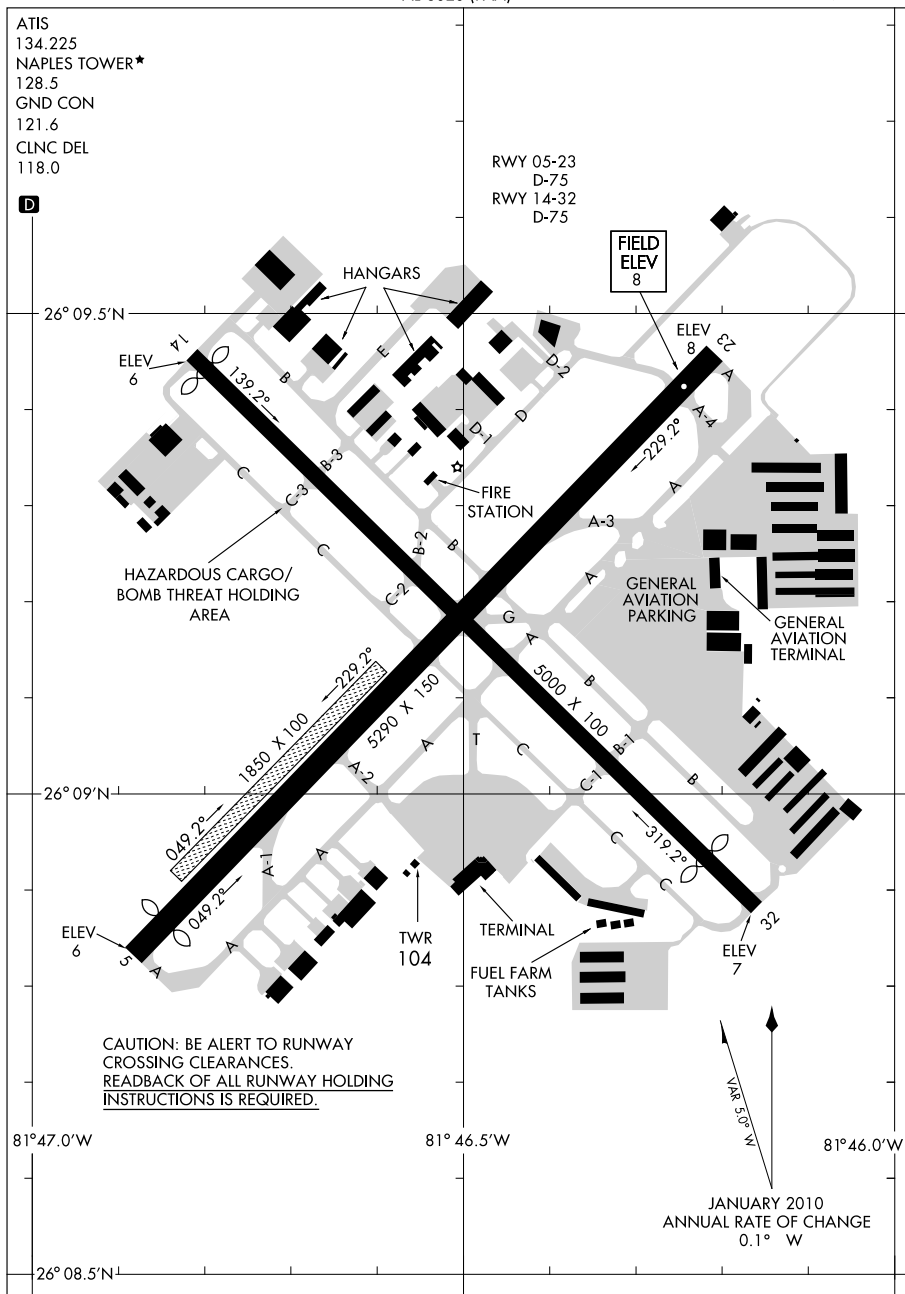
MYRTLE BEACH, SOUTH CAROLINA
MYRTLE BEACH INTL (MYR)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-6020 (FAA)

NAPLES MUNI (APF)
NAPLES, FLORIDA



AIRPORT DIAGRAM

10210

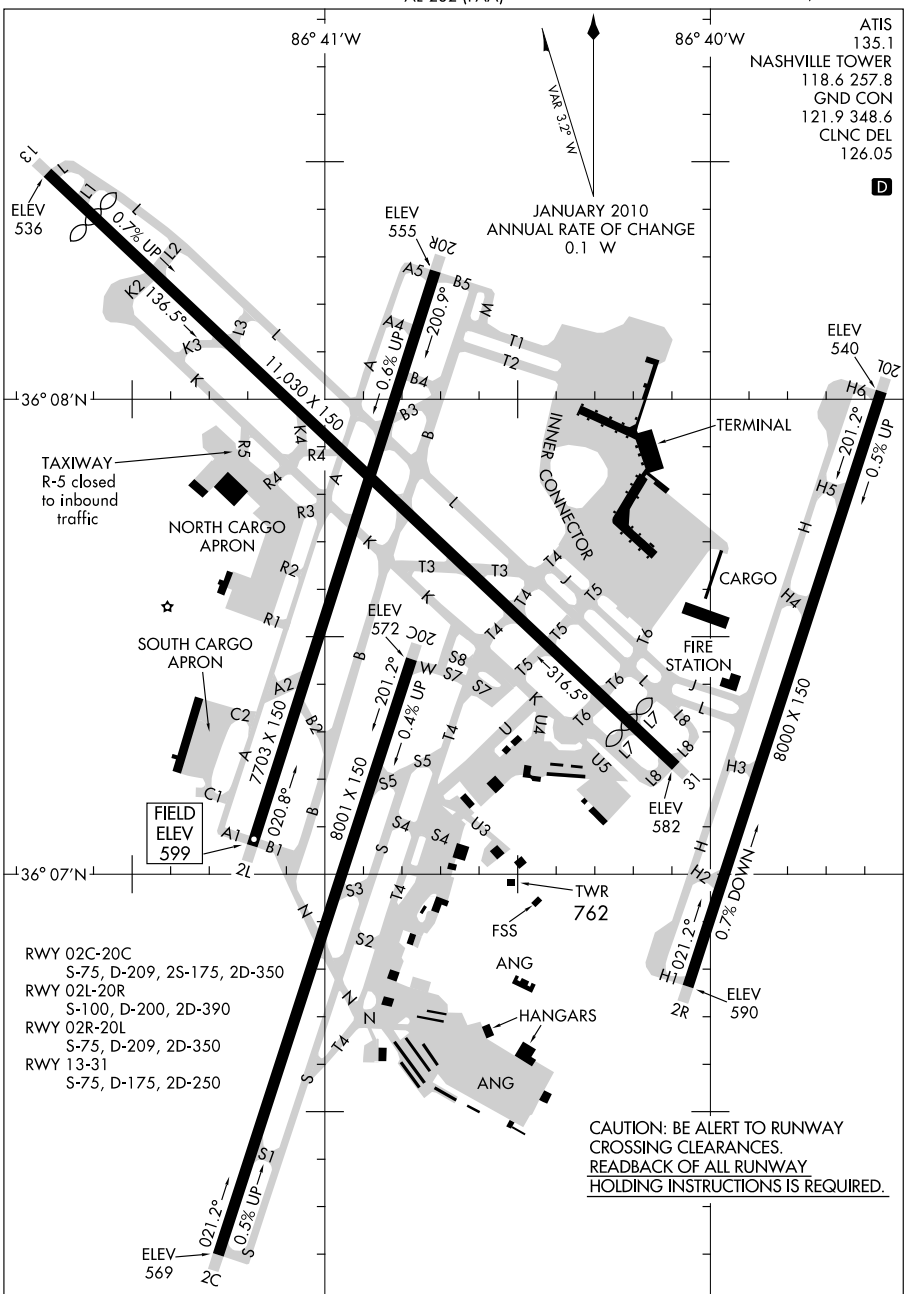
NAPLES, FLORIDA
NAPLES MUNI (APF)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

NASHVILLE INTL (BNA)
NASHVILLE, TENNESSEE

AL-282 (FAA)



AIRPORT DIAGRAM

NASHVILLE, TENNESSEE
NASHVILLE INTL (BNA)

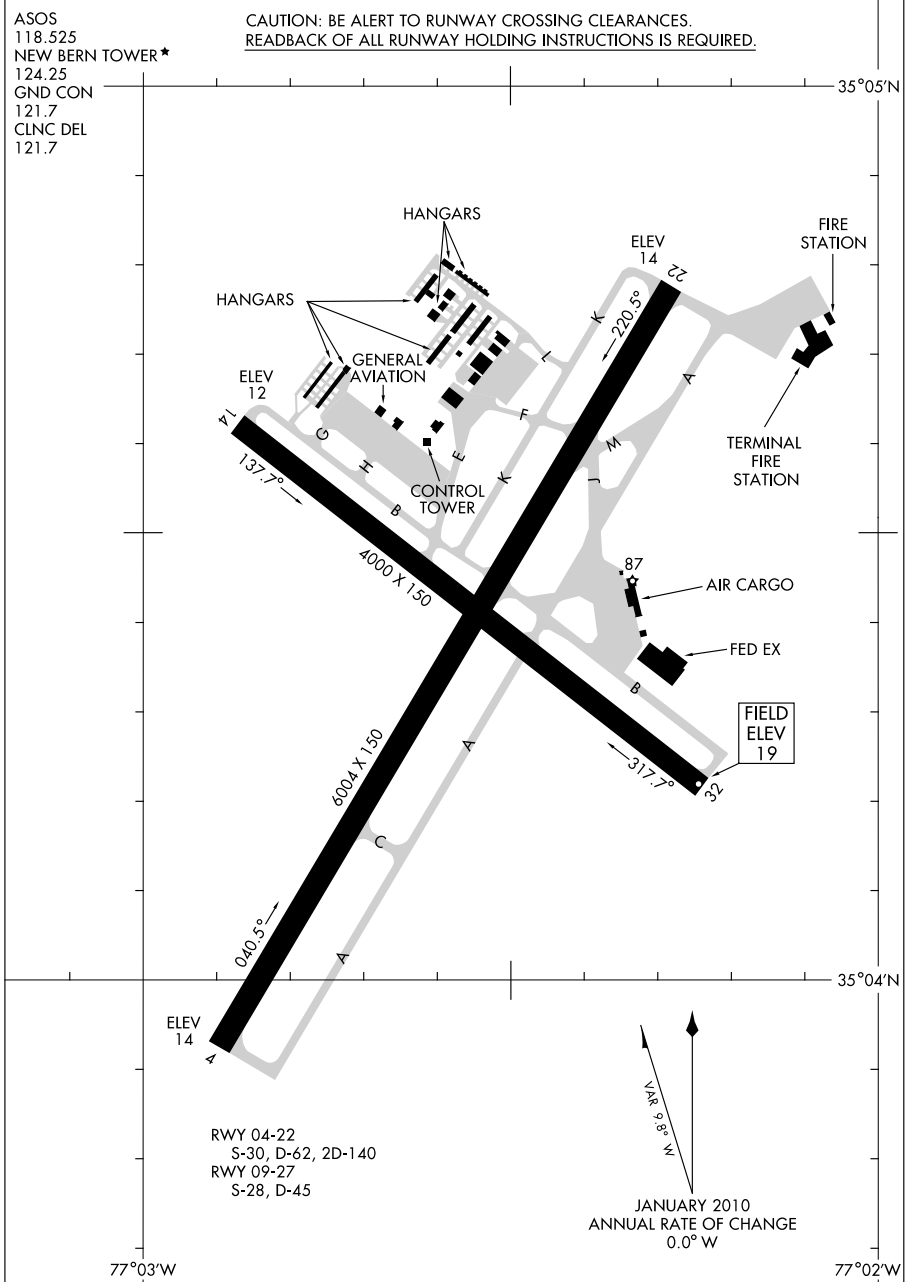
10210

SE, 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

NEW BERN/COASTAL CAROLINA RGNL (E'WN)
AL-670 (FAA) NEW BERN, NORTH CAROLINA



AIRPORT DIAGRAM

NEW BERN, NORTH CAROLINA
NEW BERN/COASTAL CAROLINA RGNL (E'WN)

10210

SE. 23 SEP 2010 to 18 NOV 2010

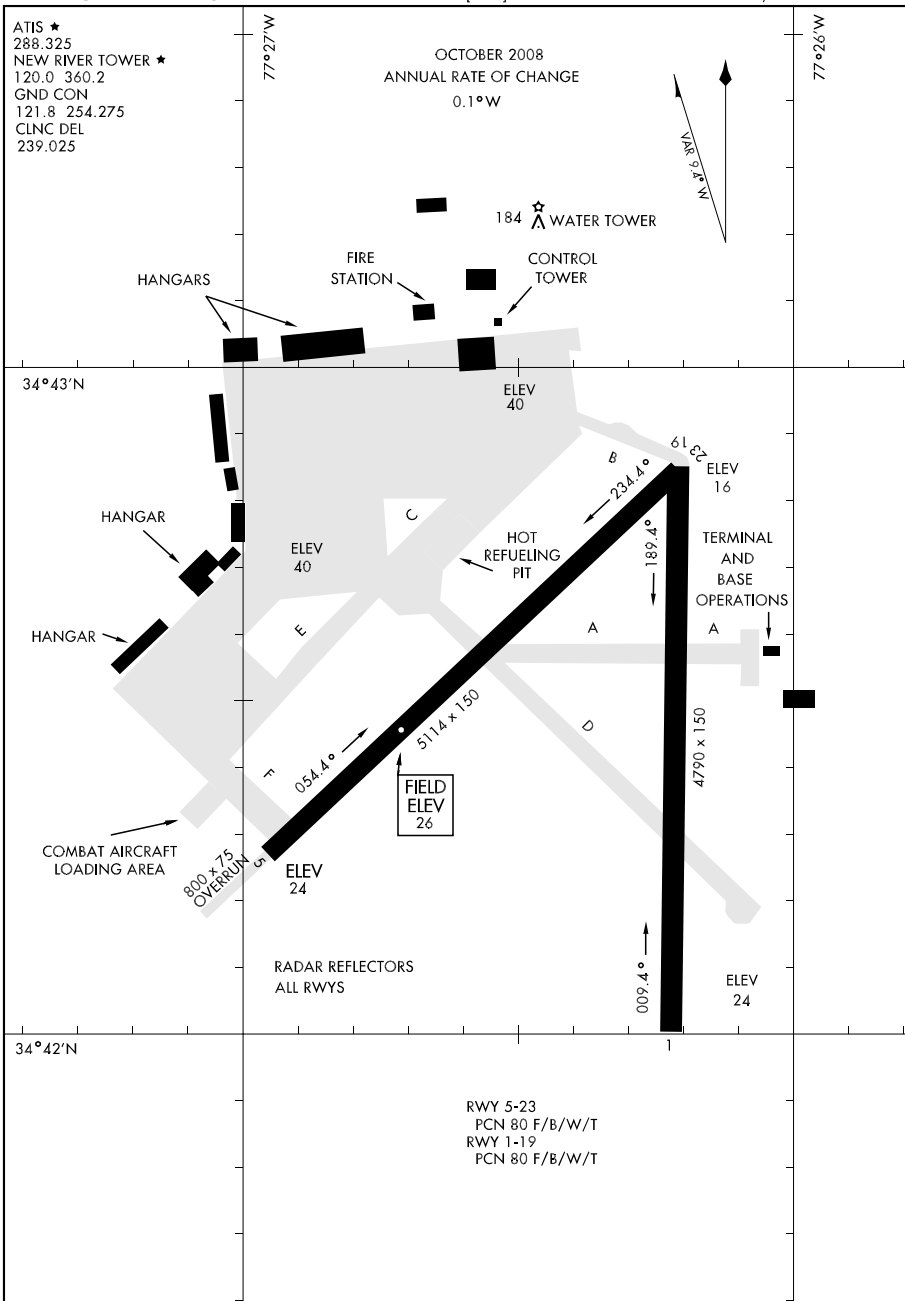
08325

AIRPORT DIAGRAM

AFD-732 [USN]

NEW RIVER MCAS (KNCA)

JACKSONVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

JACKSONVILLE, NORTH CAROLINA

NEW RIVER MCAS (KNCA)

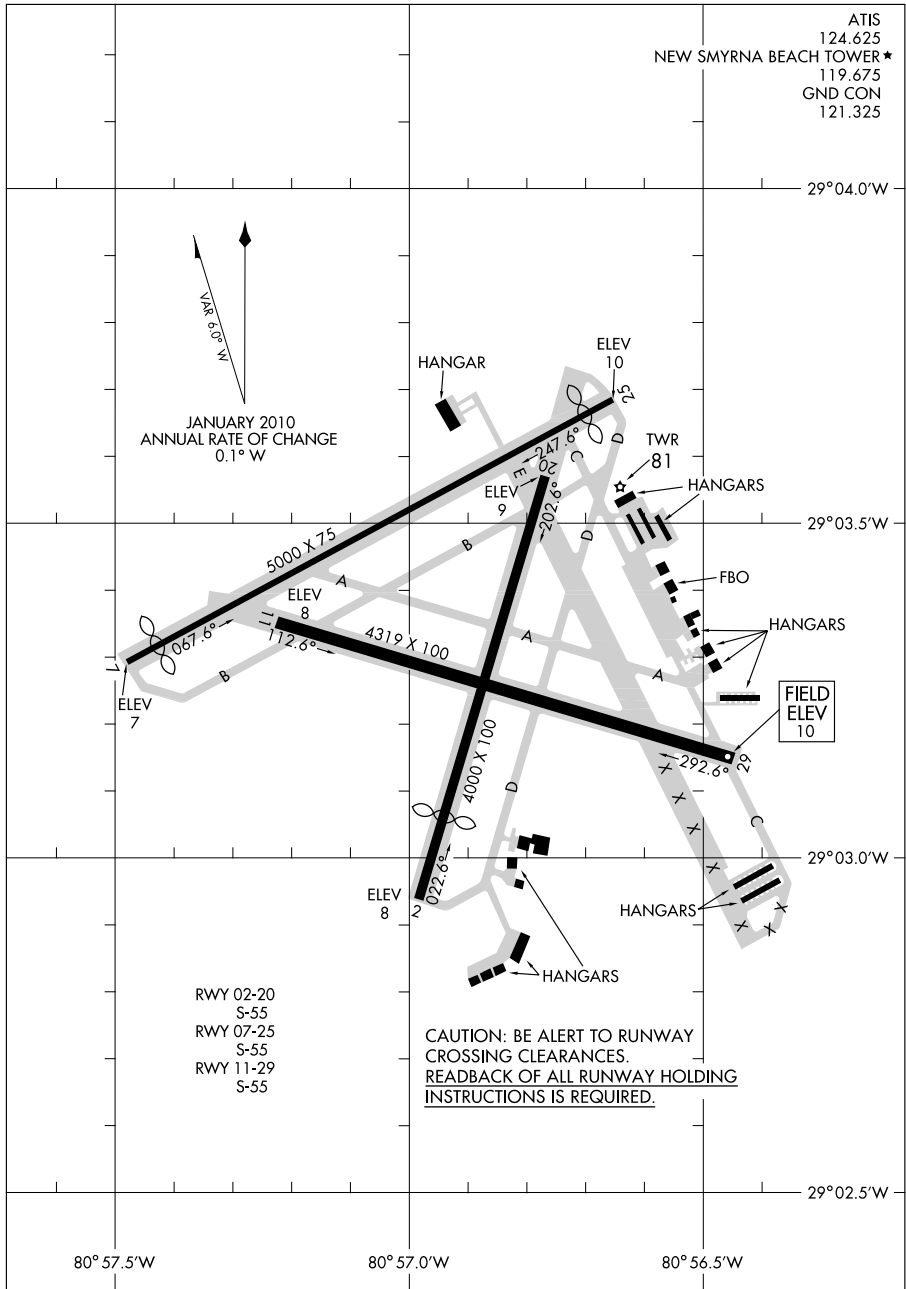
SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

AL-6459 (FAA)

NEW SMYRNA BEACH MUNI (EVV)
NEW SMYRNA BEACH, FLORIDA



AIRPORT DIAGRAM

10266

NEW SMYRNA BEACH, FLORIDA
NEW SMYRNA BEACH MUNI (EVV)

SE. 23 SEP 2010 to 18 NOV 2010

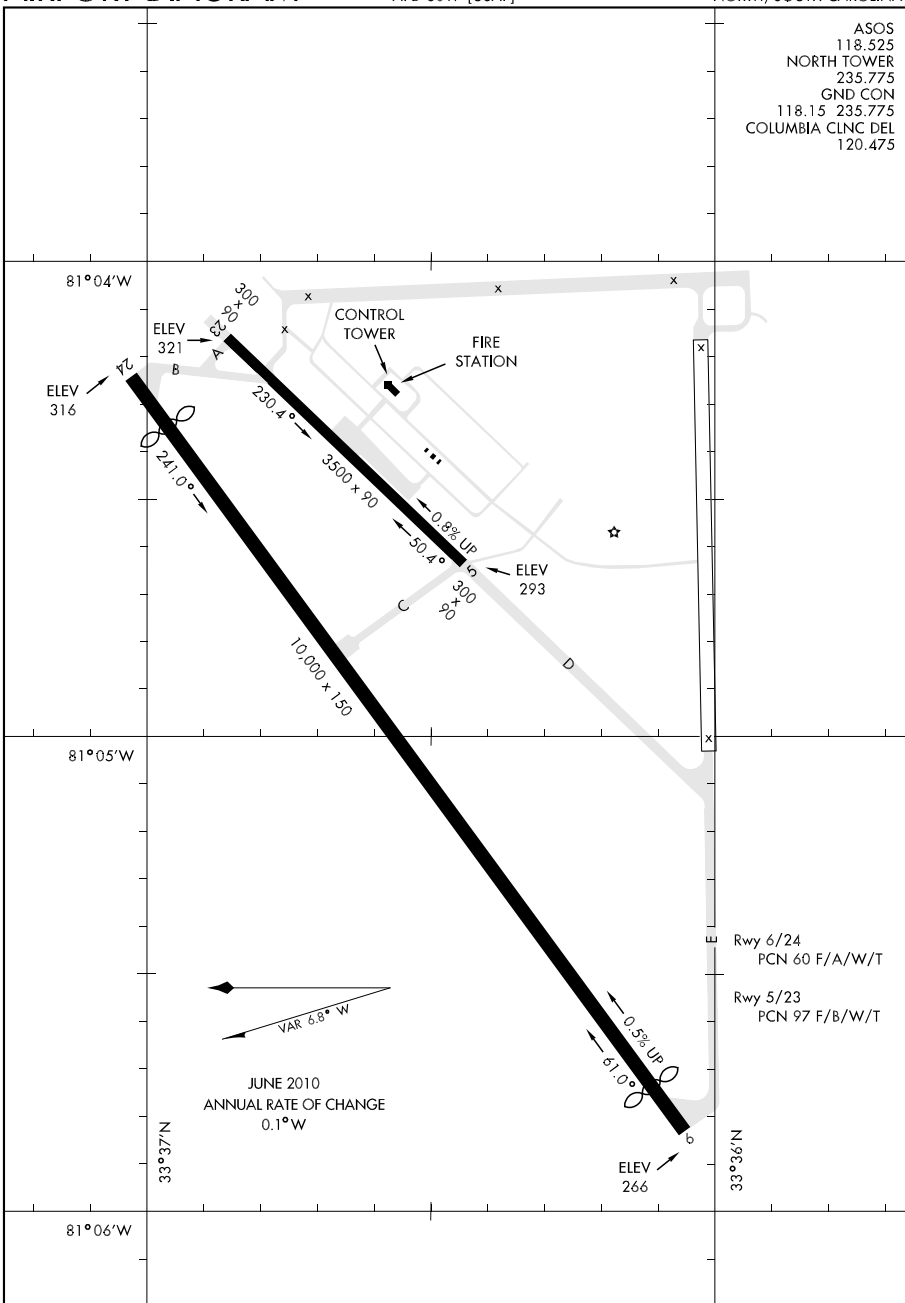
Orig 10154

AIRPORT DIAGRAM

AFD-3017 [USAF]

NORTH AF AUX (KXNO)

NORTH, SOUTH CAROLINA



AIRPORT DIAGRAM

NORTH, SOUTH CAROLINA

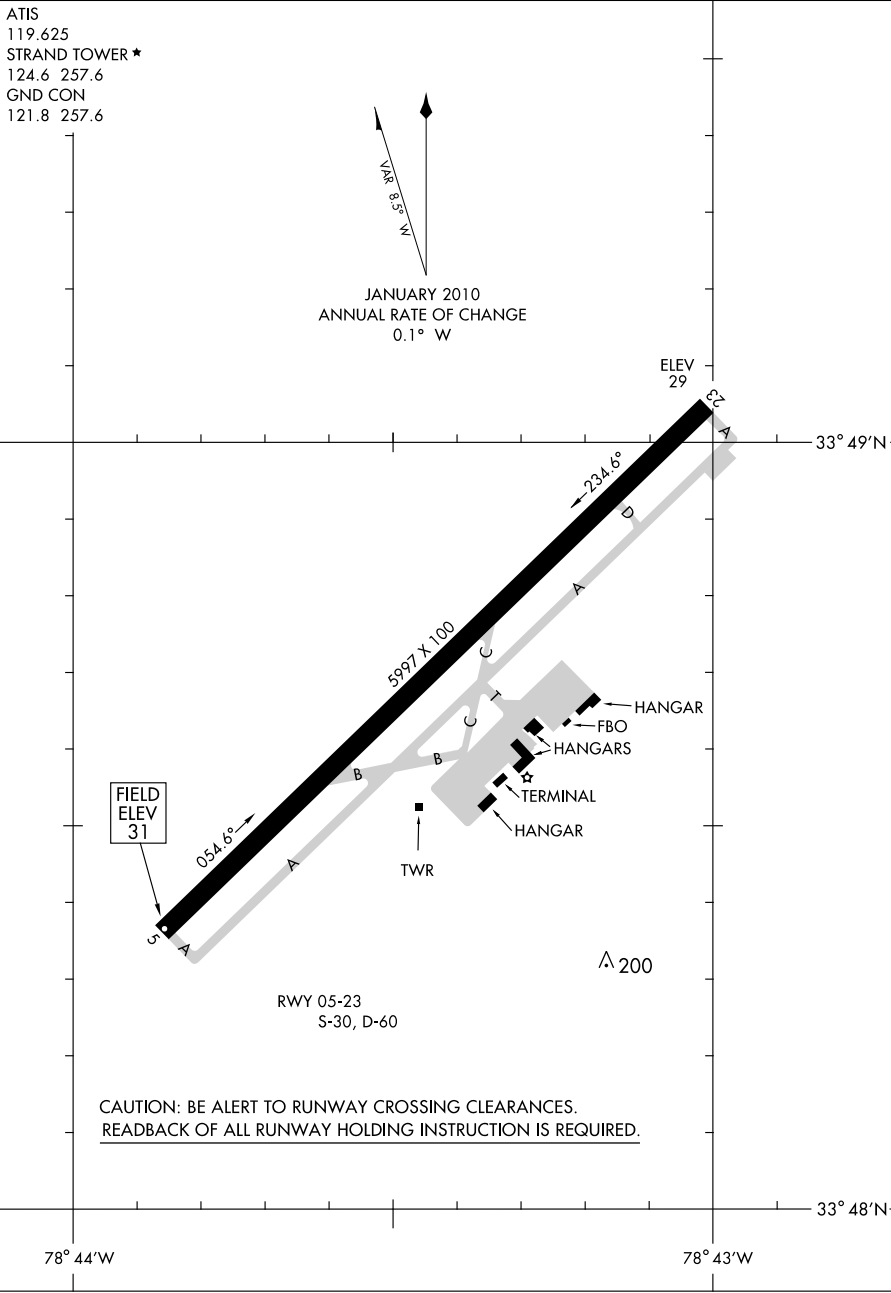
NORTH AF AUX (KXNO)

SE. 23 SEP 2010 to 18 NOV 2010

10210
AIRPORT DIAGRAM

NORTH MYRTLE BEACH/GRAND STRAND (CRE)
AL-5097 (FAA) NORTH MYRTLE BEACH, SOUTH CAROLINA

ATIS
119.625
STRAND TOWER ★
124.6 257.6
GND CON
121.8 257.6



AIRPORT DIAGRAM
10210

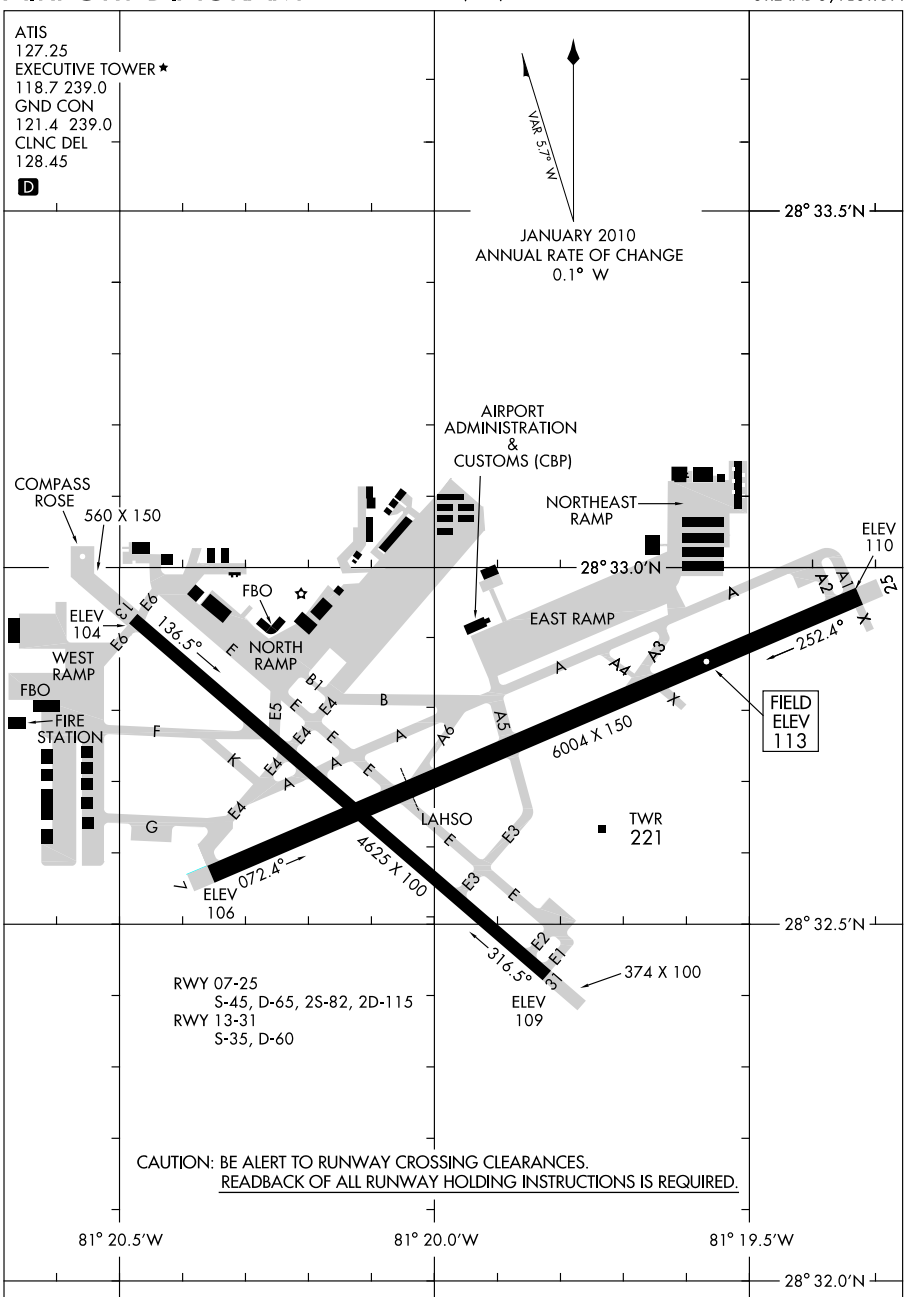
NORTH MYRTLE BEACH, SOUTH CAROLINA
NORTH MYRTLE BEACH/GRAND STRAND (CRE)

10266

AIRPORT DIAGRAM

AL-305 (FAA)

ORLANDO/EXECUTIVE (ORL)
ORLANDO, FLORIDA



AIRPORT DIAGRAM

ORLANDO, FLORIDA
ORLANDO/EXECUTIVE (ORL)

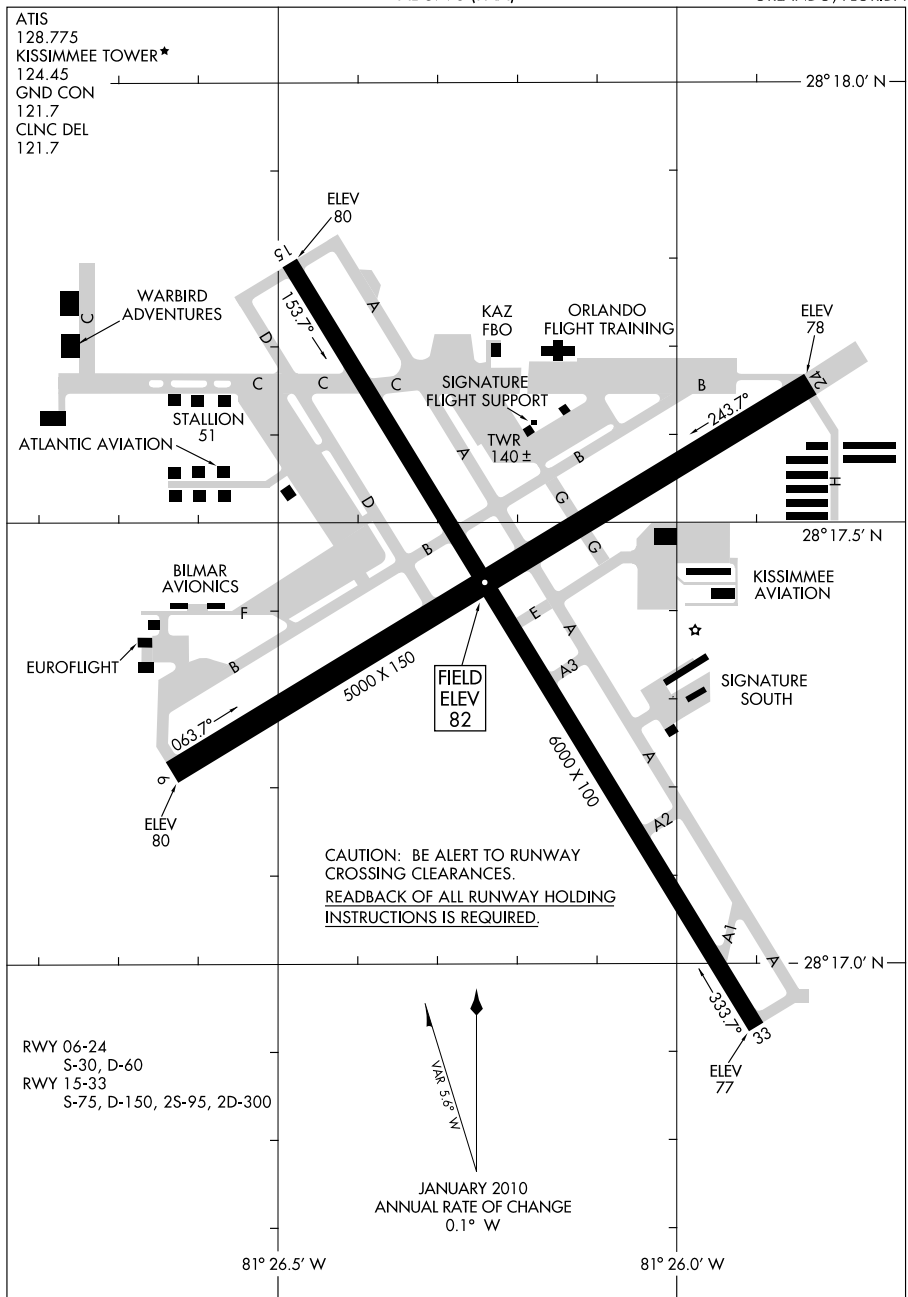
10266

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

ORLANDO/KISSIMMEE GATEWAY (ISM)
AL-5793 (FAA) ORLANDO, FLORIDA



AIRPORT DIAGRAM

10210

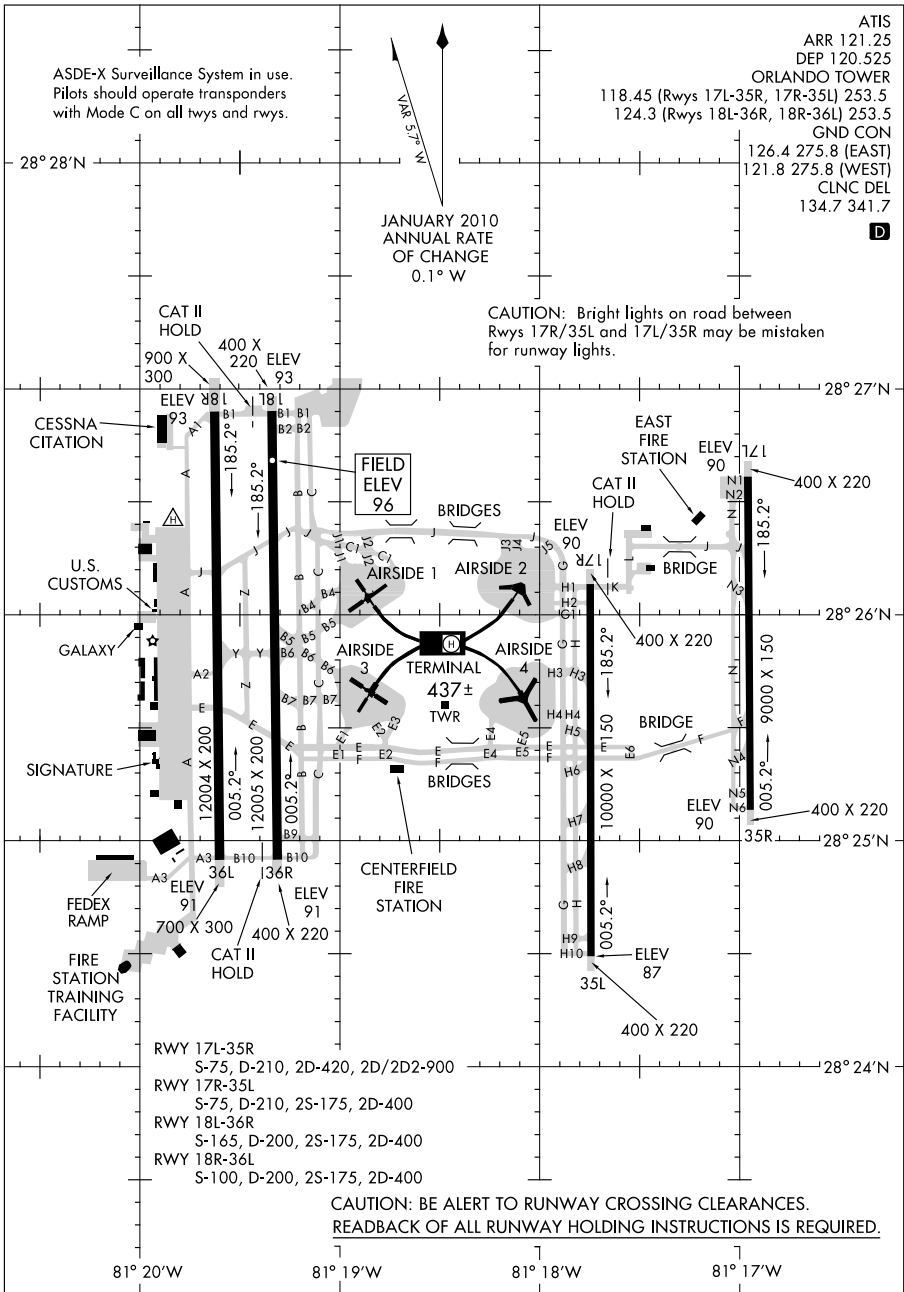
ORLANDO, FLORIDA
ORLANDO/KISSIMMEE GATEWAY (ISM)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

ORLANDO INTL (MCO)
ORLANDO, FLORIDA



AIRPORT DIAGRAM

ORLANDO, FLORIDA
ORLANDO INTL (MCO)

10210

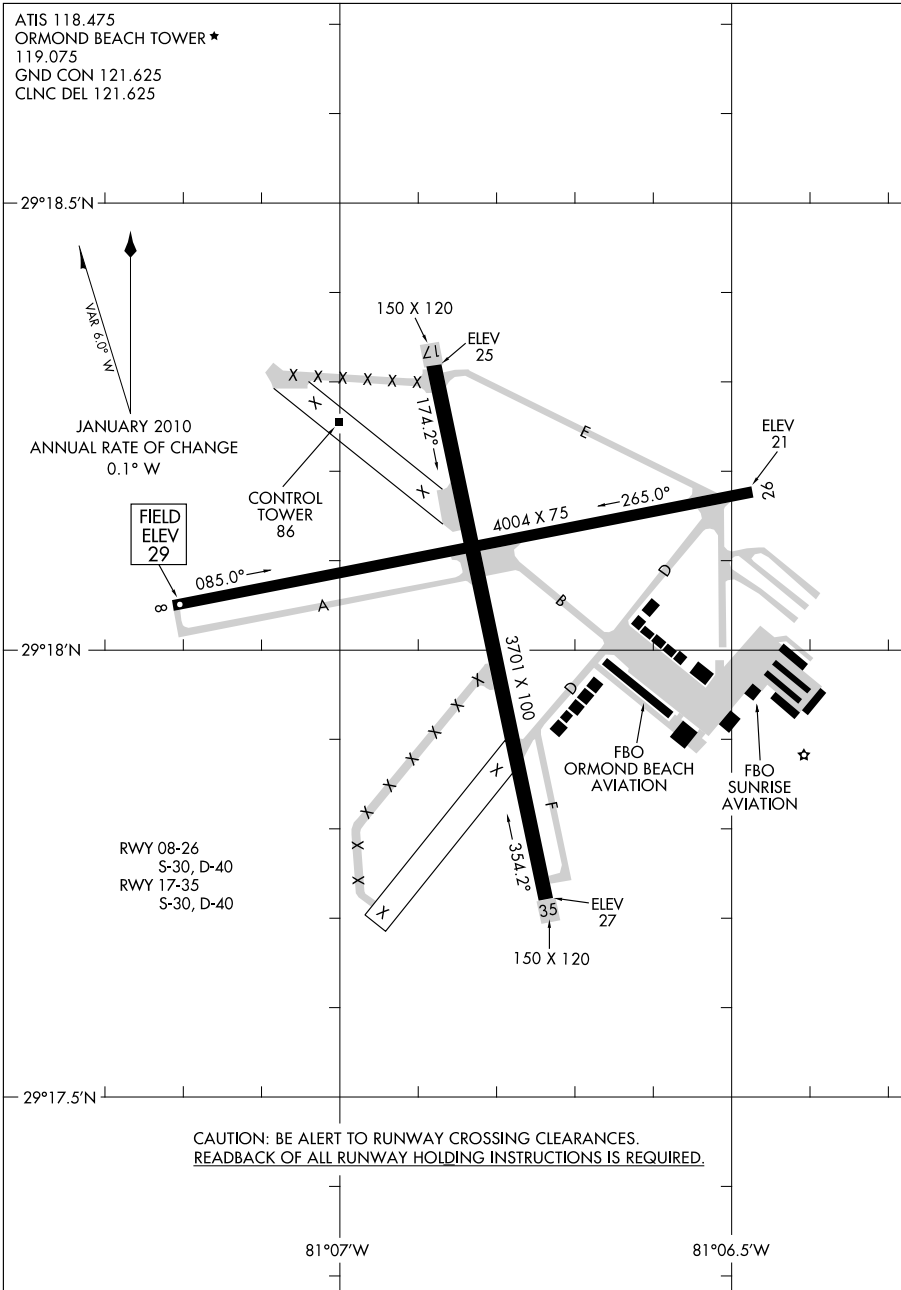


SE, 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-5459 (FAA)

ORMOND BEACH MUNI (OMN)
ORMOND BEACH, FLORIDA

AIRPORT DIAGRAM

10210

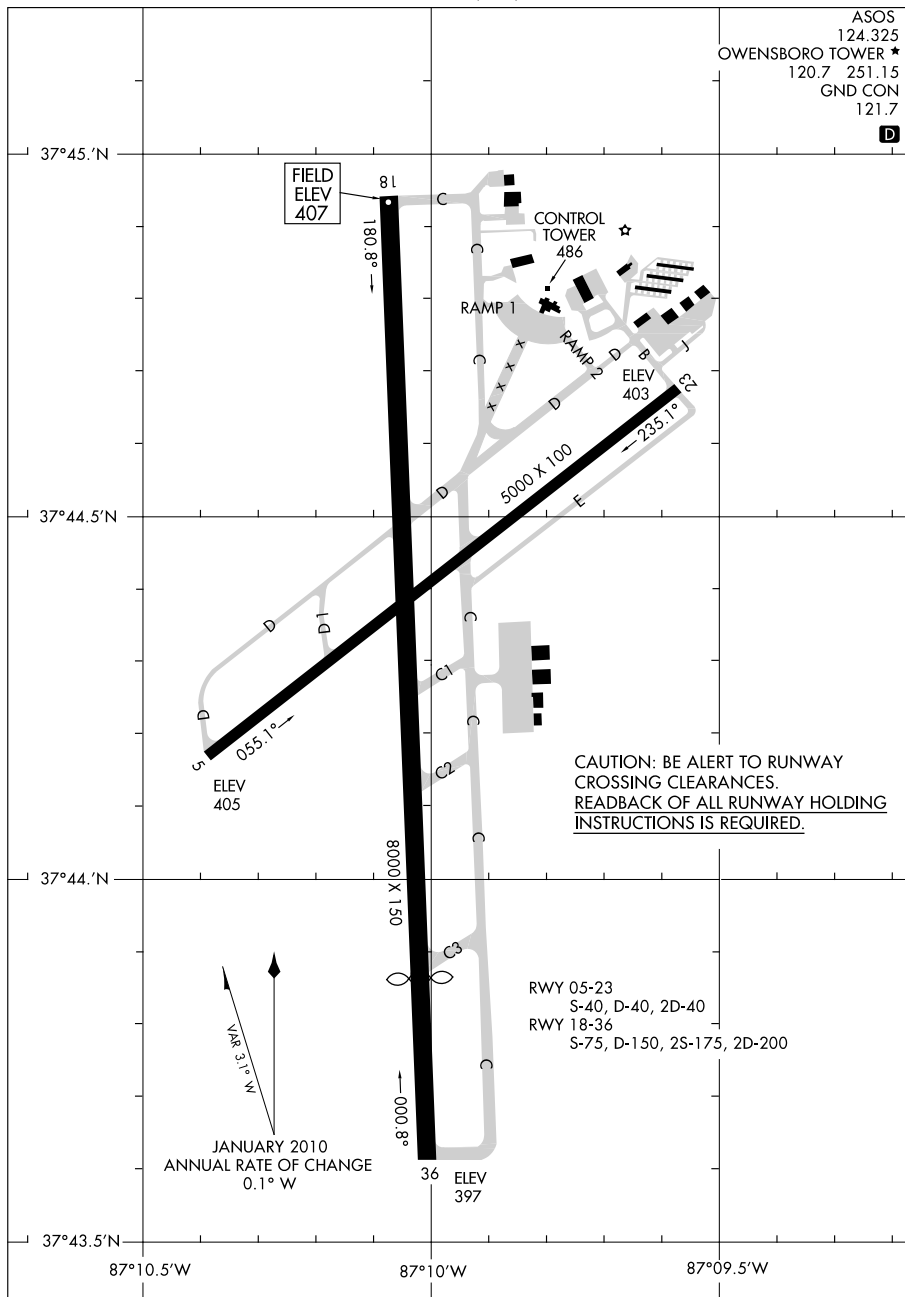
ORMOND BEACH, FLORIDA
ORMOND BEACH MUNI (OMN)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-707 (FAA) OWENSBORO-DAVIESS COUNTY (OWB)
OWENSBORO, KENTUCKY



AIRPORT DIAGRAM

10210

OWENSBORO, KENTUCKY
OWENSBORO-DAVIESS COUNTY (OWB)

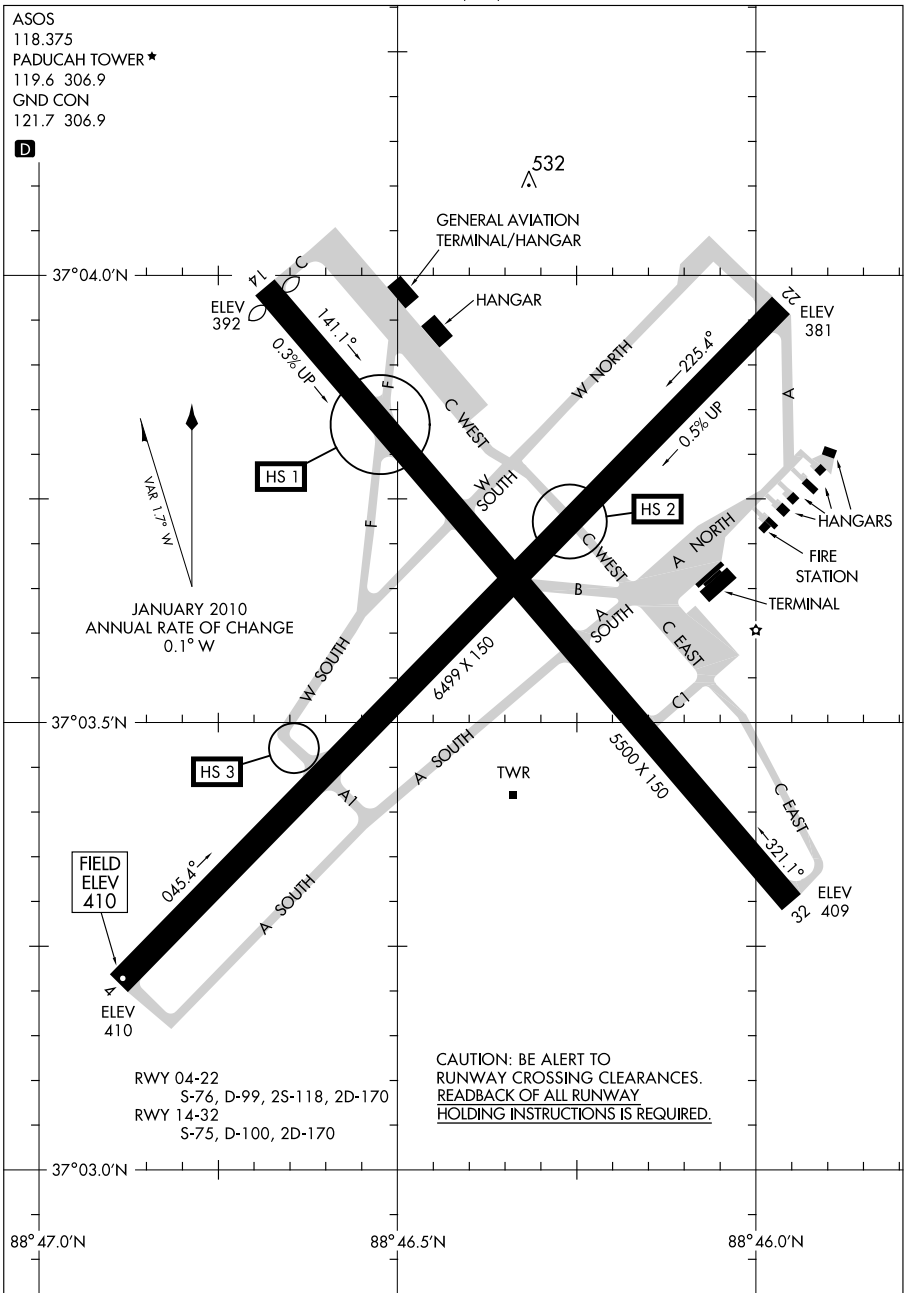
SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

PADUCAH/BARKLEY RGNL (PAH)

PADUCAH, KENTUCKY



AIRPORT DIAGRAM

10266

PADUCAH, KENTUCKY
PADUCAH/BARKLEY RGNL (PAH)

SE. 23 SEP 2010 to 18 NOV 2010

10210

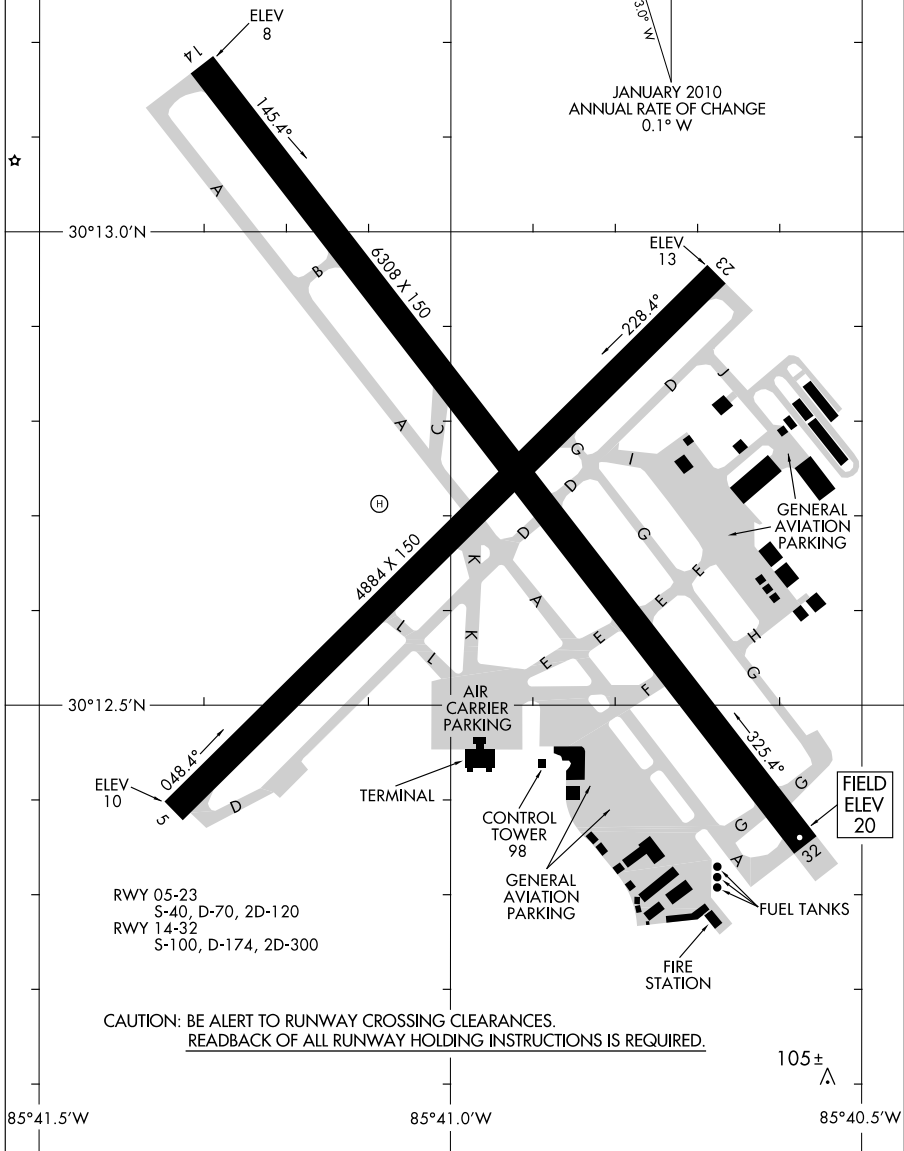
AIRPORT DIAGRAM

AL-695 (FAA)

PANAMA CITY-BAY COUNTY INTL (P.F.N)

PANAMA CITY, FLORIDA

ATIS
119.975
PANAMA CITY TOWER ★
120.5 269.0
GND CON
121.65



AIRPORT DIAGRAM

10210

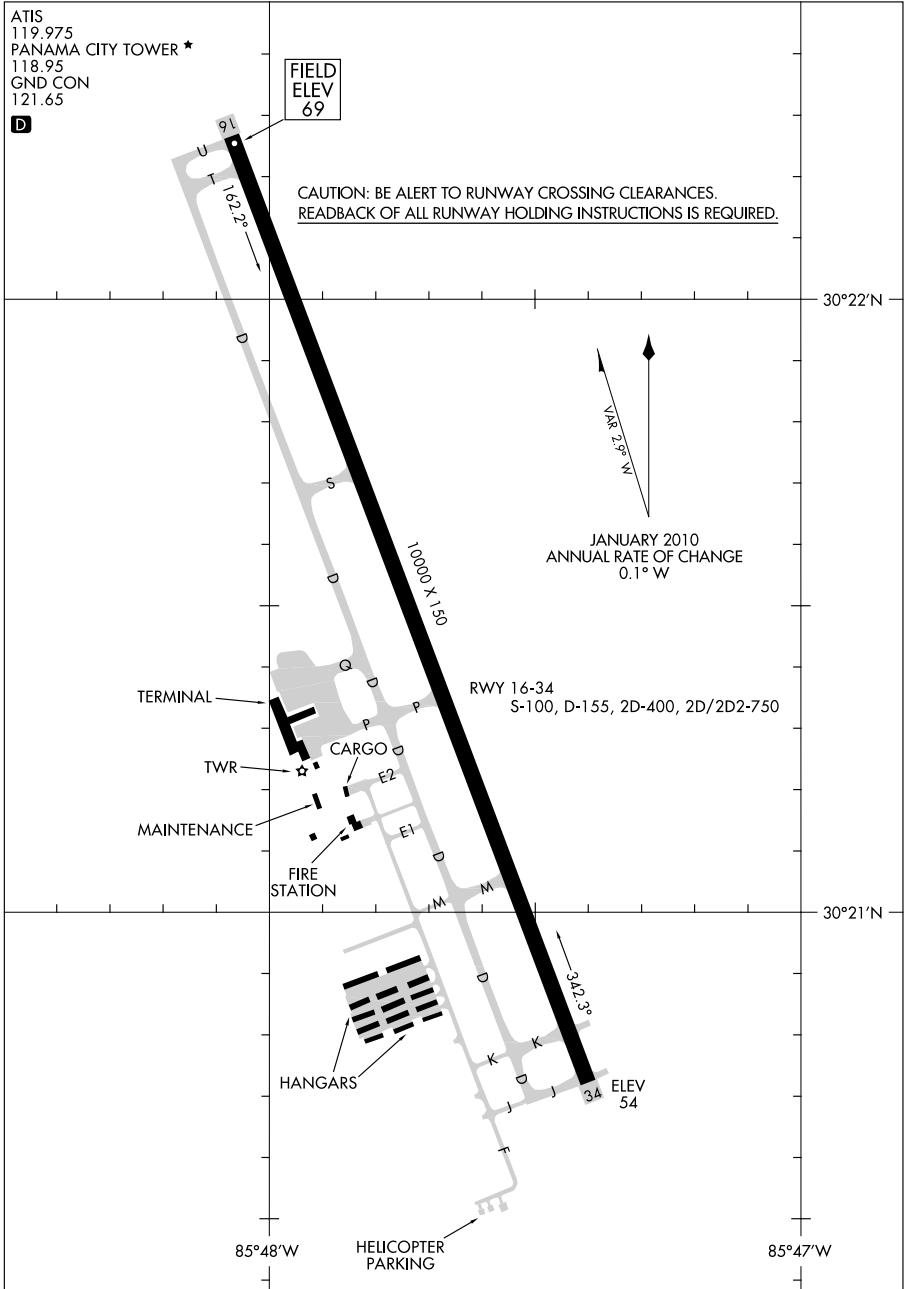
PANAMA CITY, FLORIDA
PANAMA CITY-BAY COUNTY INTL (P.F.N)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

PANAMA CITY/NORTHWEST FLORIDA - PANAMA CITY INTL (ECP)
AL-10416 (FAA) PANAMA CITY, FLORIDA



AIRPORT DIAGRAM

PANAMA CITY, FLORIDA
PANAMA CITY/NORTHWEST FLORIDA - PANAMA CITY INTL (ECP)

10210

SE. 23 SEP 2010 to 18 NOV 2010

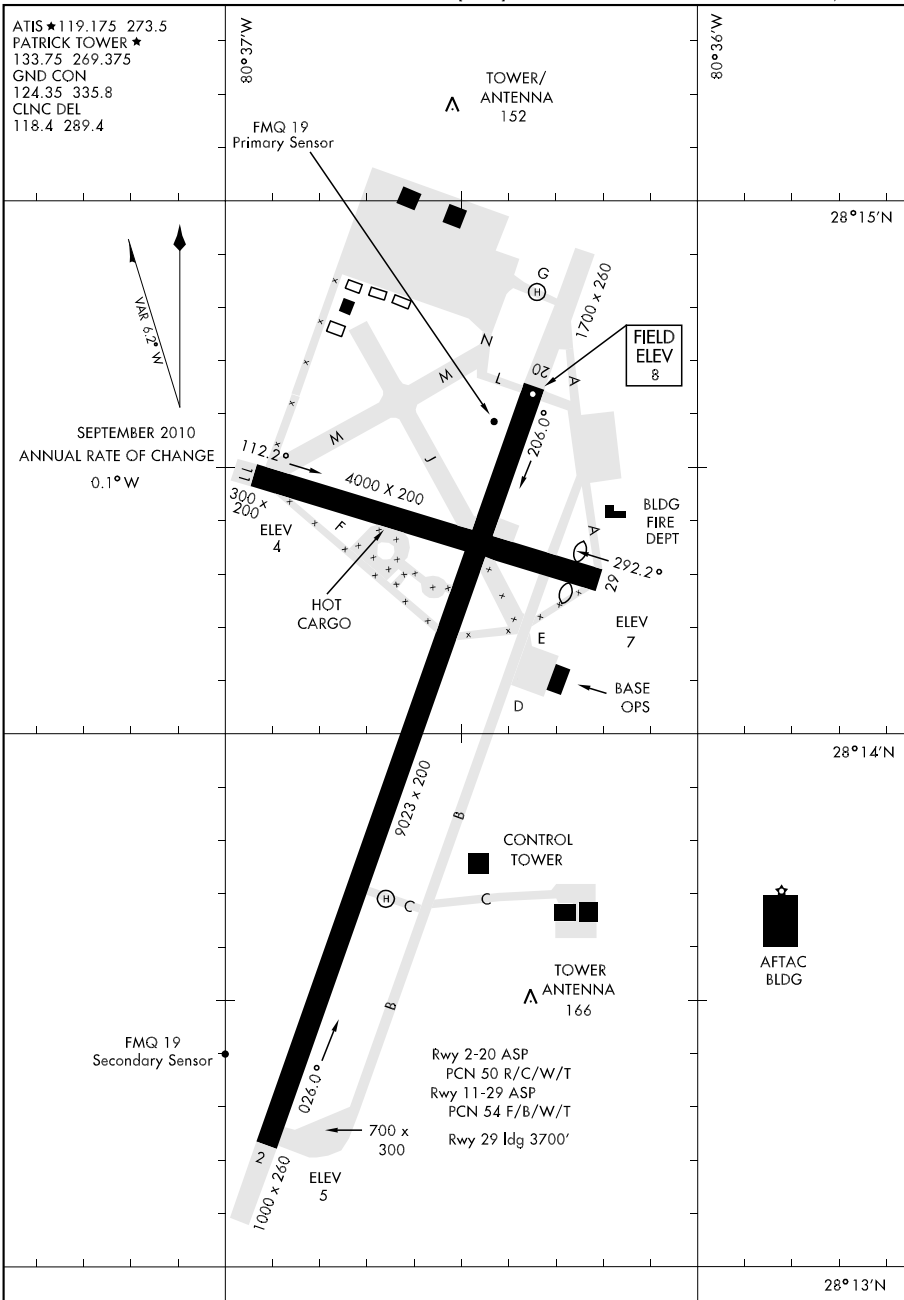
10266

AIRPORT DIAGRAM

AFD-38 [USAF]

PATRICK AFB (KCOF)

COCOA BEACH, FLORIDA



AIRPORT DIAGRAM

COCOA BEACH, FLORIDA

PATRICK AFB (KCOF)

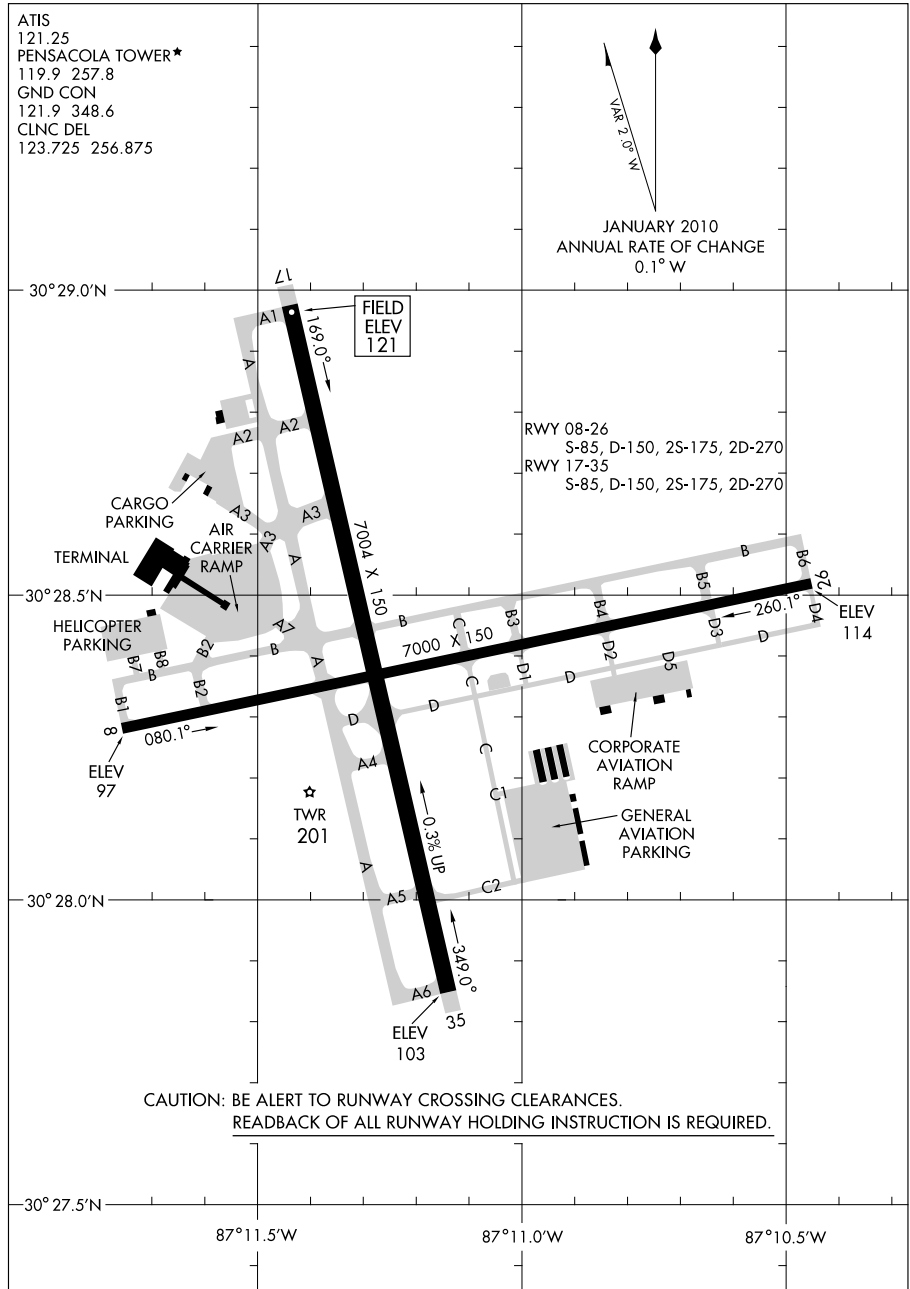
SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

AL-318 (FAA)

PENSACOLA GULF COAST RGNL (PNS)
PENSACOLA, FLORIDA



AIRPORT DIAGRAM

10266

PENSACOLA, FLORIDA
PENSACOLA GULF COAST RGNL (PNS)

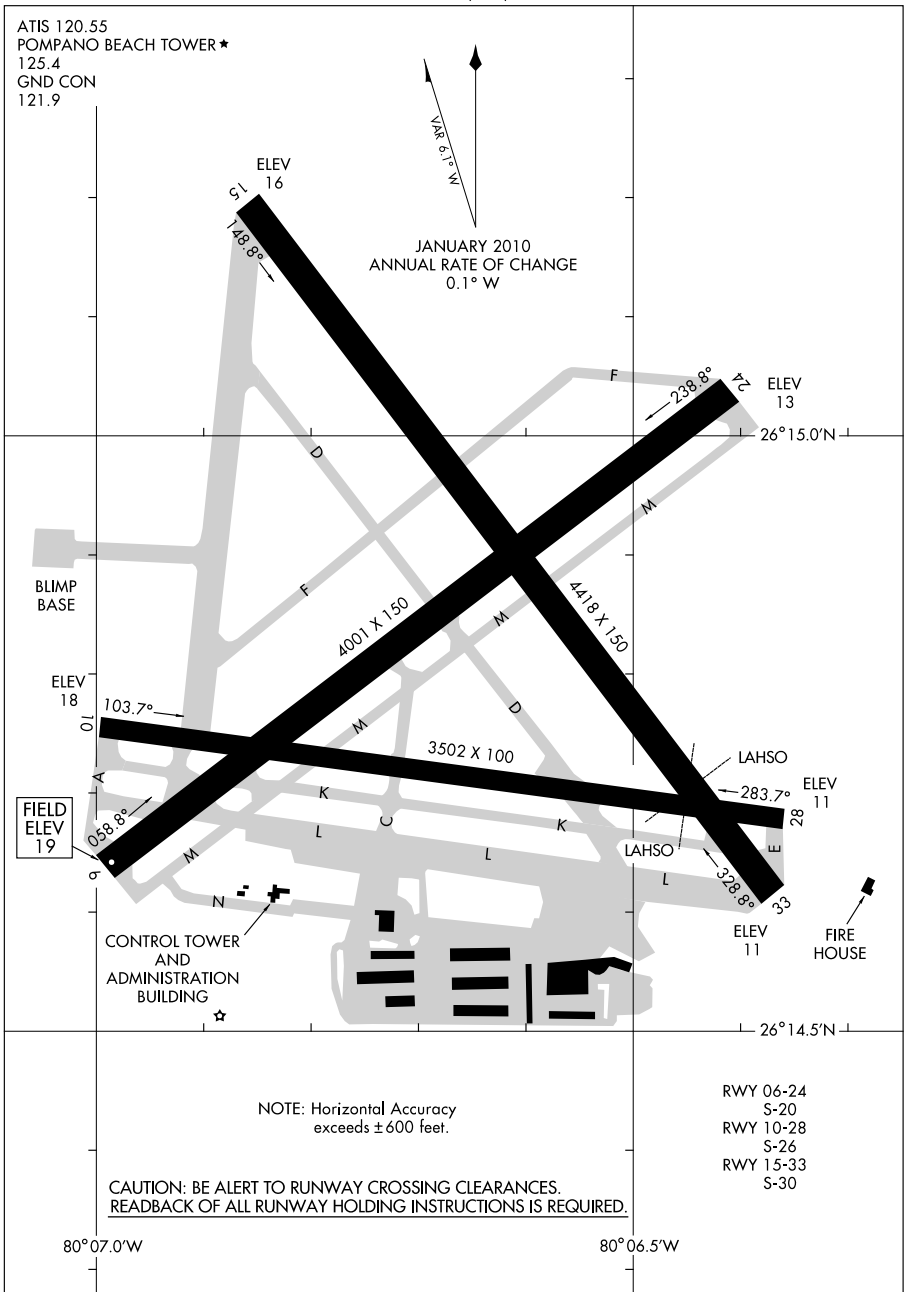
SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

POMPANO BEACH AIRPARK (PMP)
POMPANO BEACH, FLORIDA

AL-5972 (FAA)

ATIS 120.55
POMPANO BEACH TOWER ★
125.4
GND CON
121.9



AIRPORT DIAGRAM

POMPANO BEACH, FLORIDA
POMPANO BEACH AIRPARK (PMP)

10210

SE. 23 SEP 2010 to 18 NOV 2010

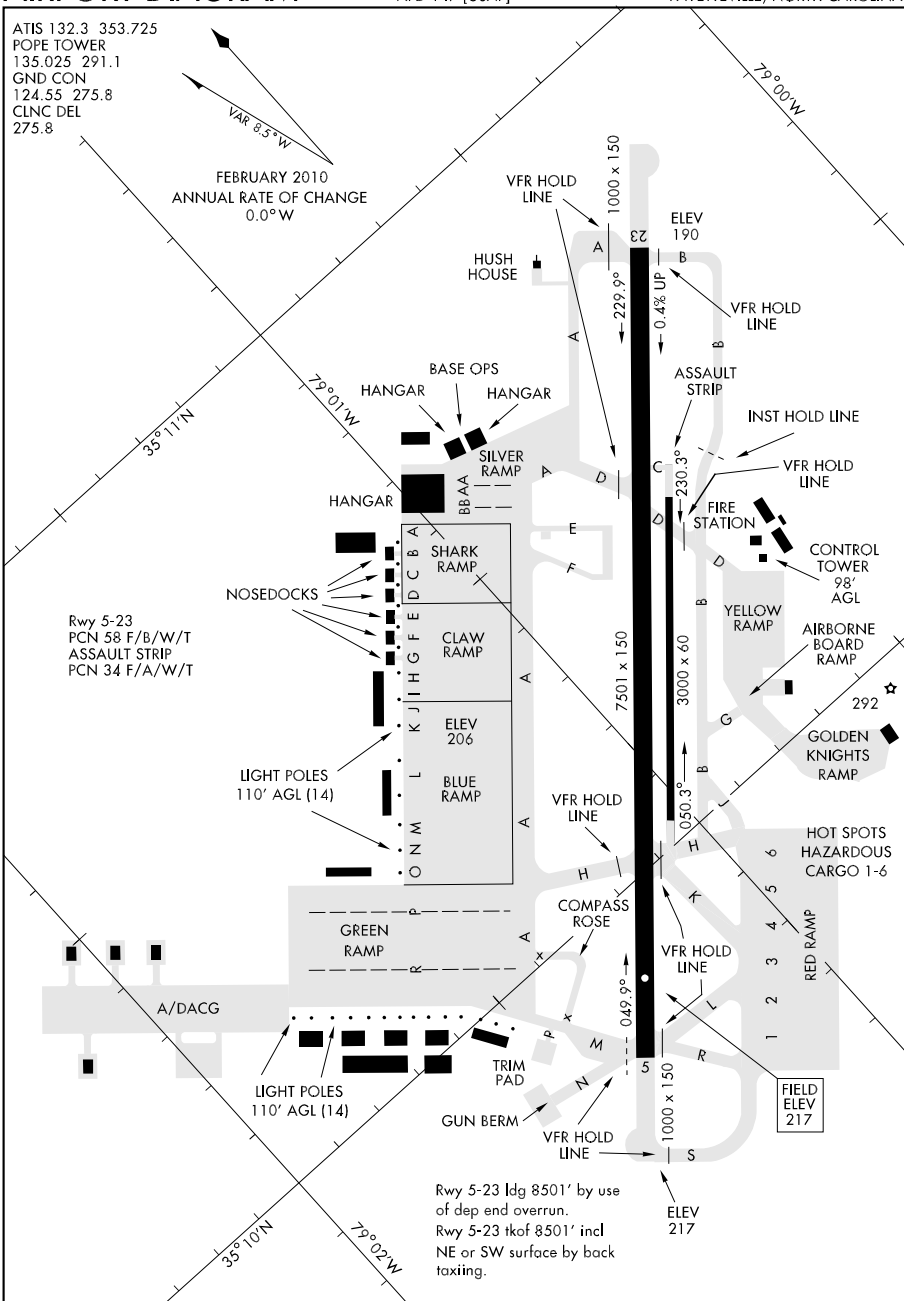
10042

AIRPORT DIAGRAM

AFD-147 [USAF]

POPE AFB (KPOB)

FAYETTEVILLE, NORTH CAROLINA



AIRPORT DIAGRAM

FAYETTEVILLE, NORTH CAROLINA

POPE AFB (KPOB)

SE. 23 SEP 2010 to 18 NOV 2010

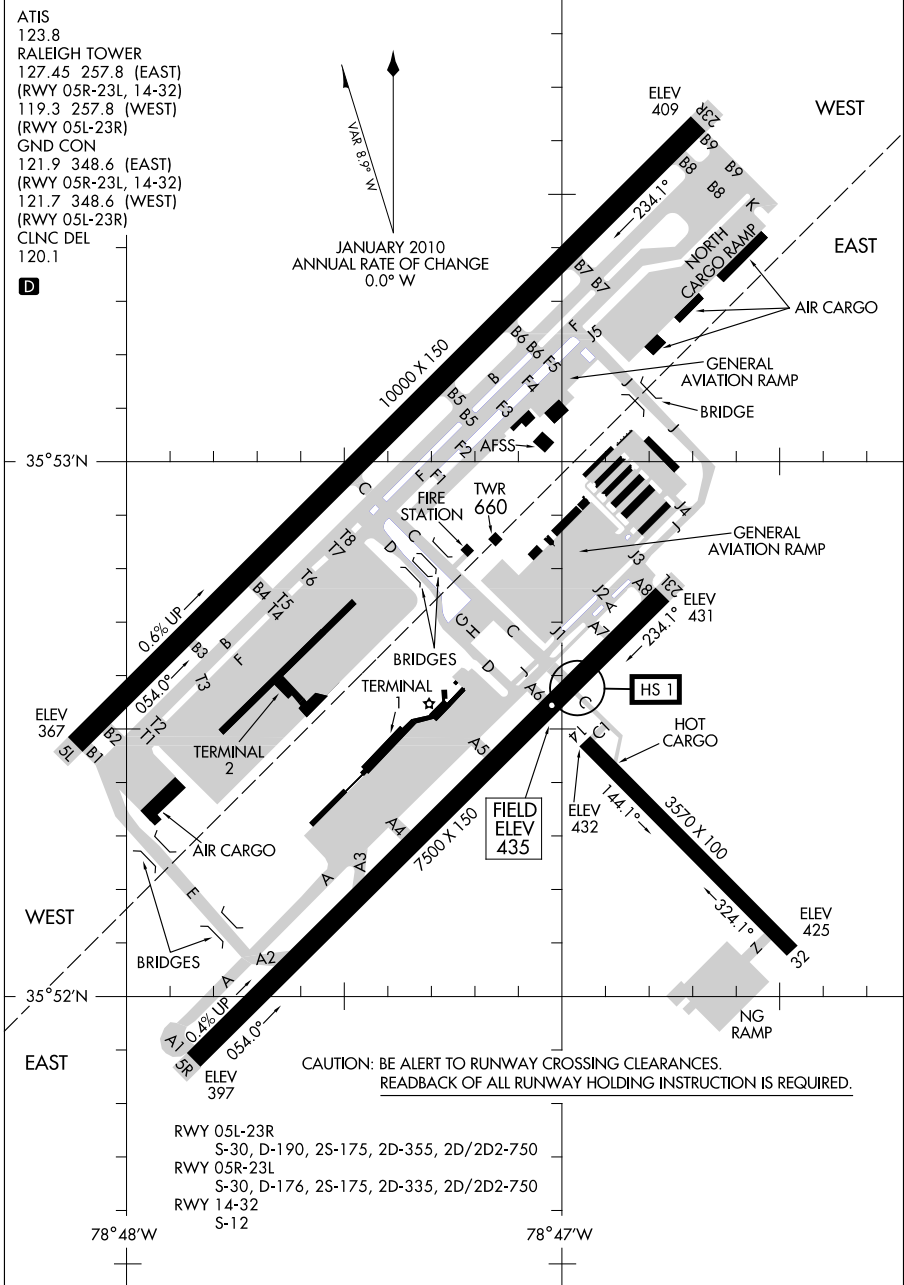
10266

AIRPORT DIAGRAM

AL-516 (FAA)

RALEIGH-DURHAM INTL (RDU)

RALEIGH/DURHAM, NORTH CAROLINA



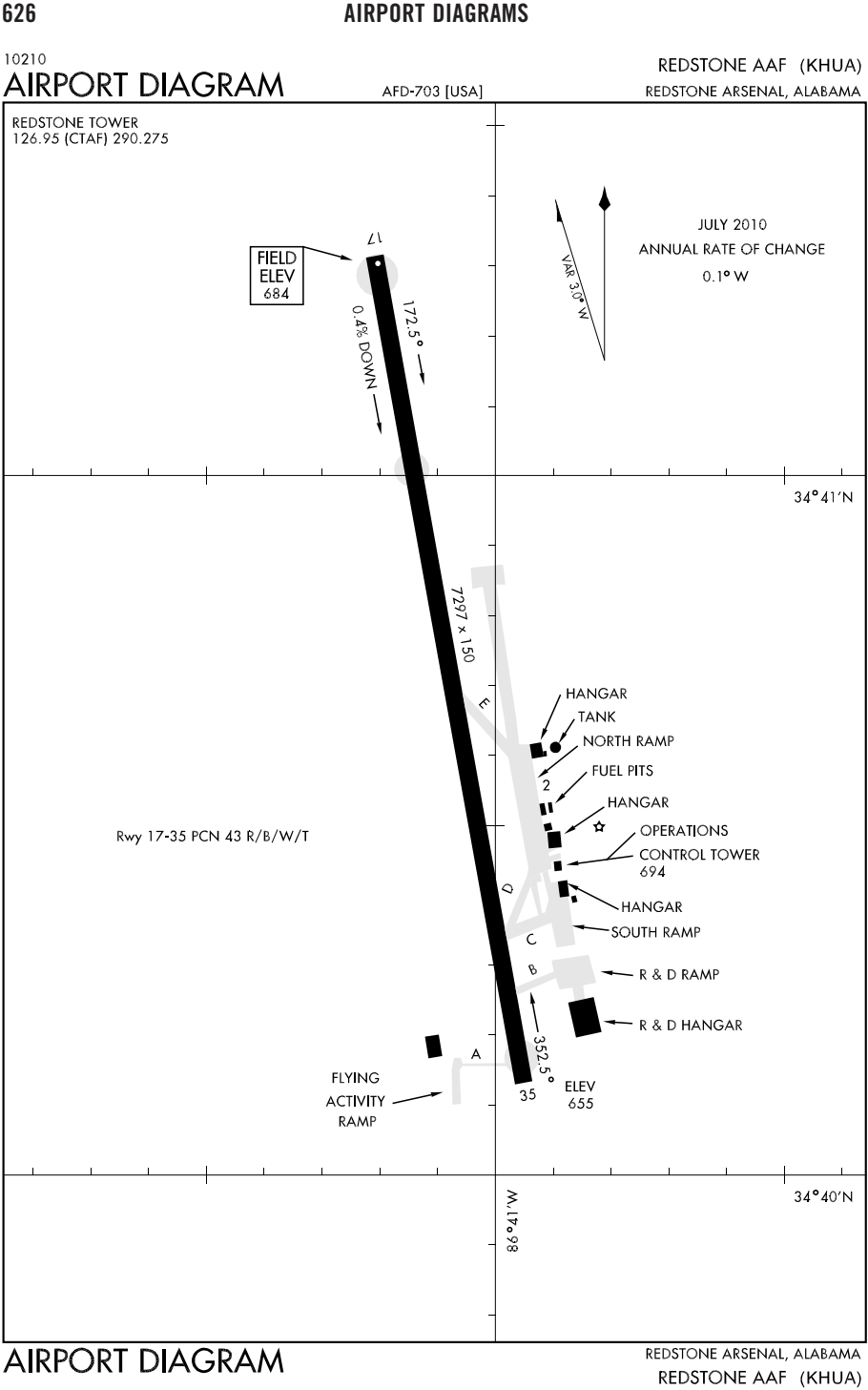
AIRPORT DIAGRAM

10266

RALEIGH/DURHAM, NORTH CAROLINA

RALEIGH-DURHAM INTL (RDU)

SE. 23 SEP 2010 to 18 NOV 2010

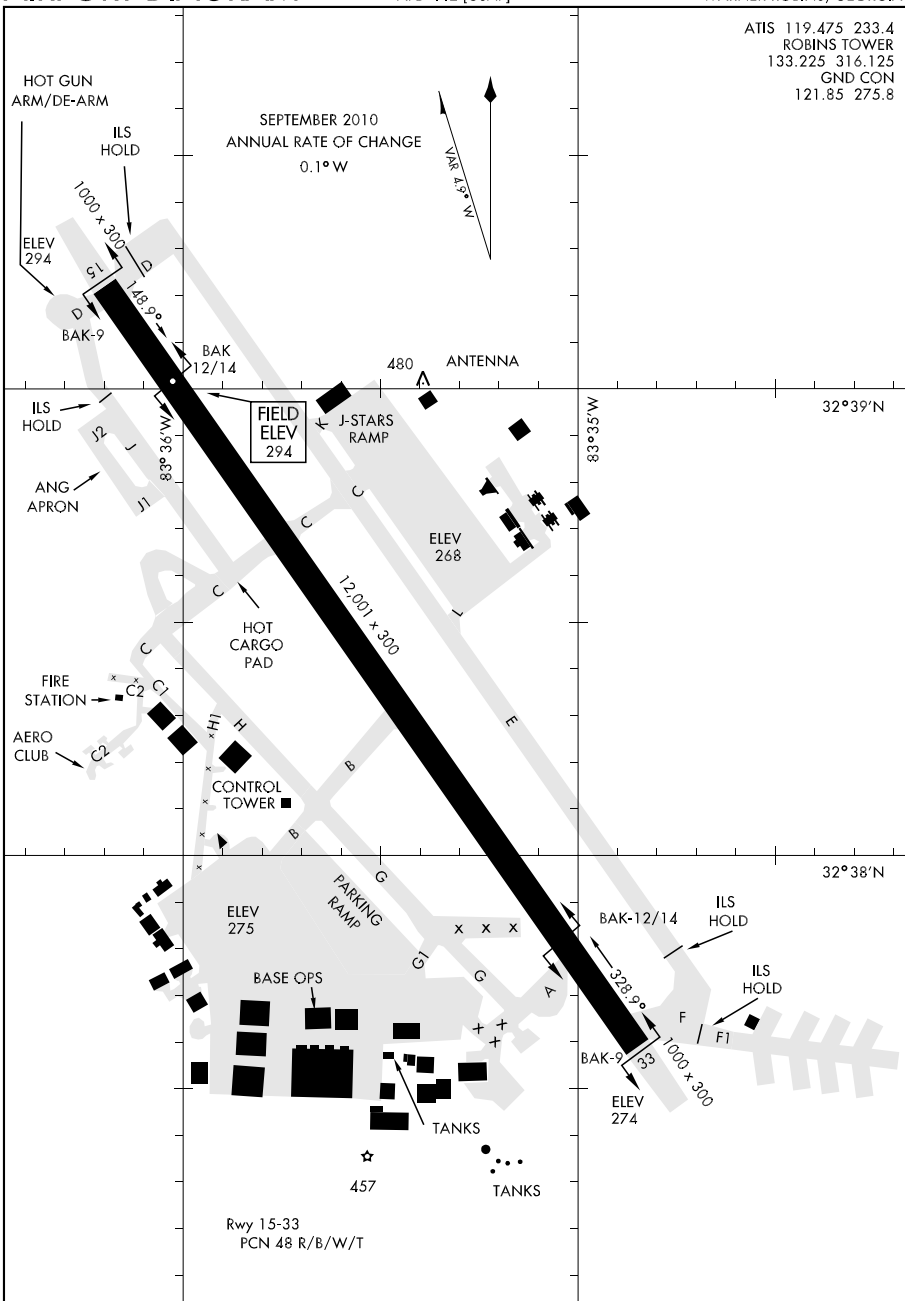


10266

AIRPORT DIAGRAM

AFD-442 [USAF]

ROBINS AFB (KWRB)
WARNER ROBINS, GEORGIA



AIRPORT DIAGRAM

WARNER ROBINS, GEORGIA
ROBINS AFB (KWRB)

SE. 23 SEP 2010 to 18 NOV 2010

10210

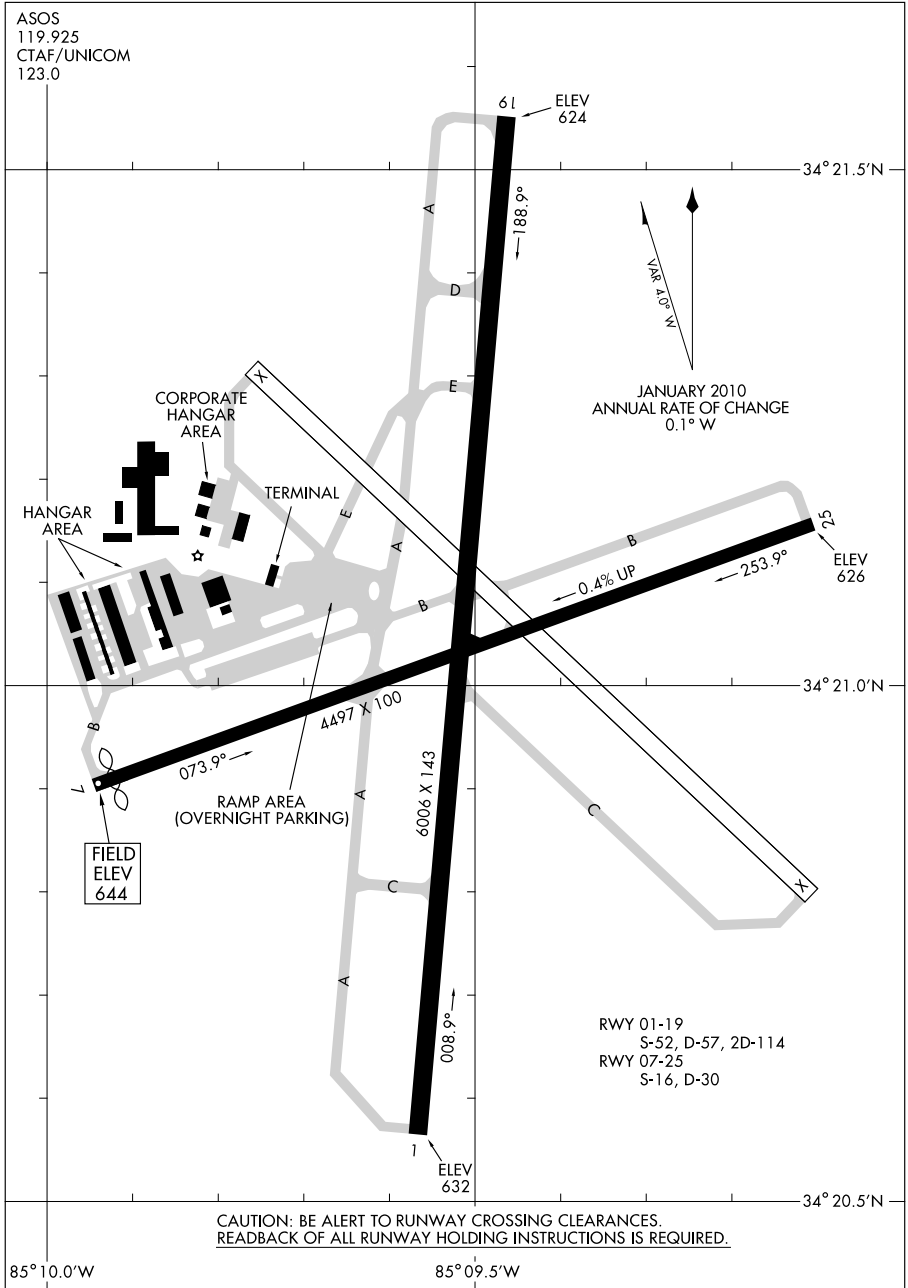
AIRPORT DIAGRAM

AL-855 (FAA)

ROME/ RICHARD B. RUSSELL (RMG)

ROME, GEORGIA

ASOS
119.925
CTAF/UNICOM
123.0



AIRPORT DIAGRAM

10210

ROME, GEORGIA

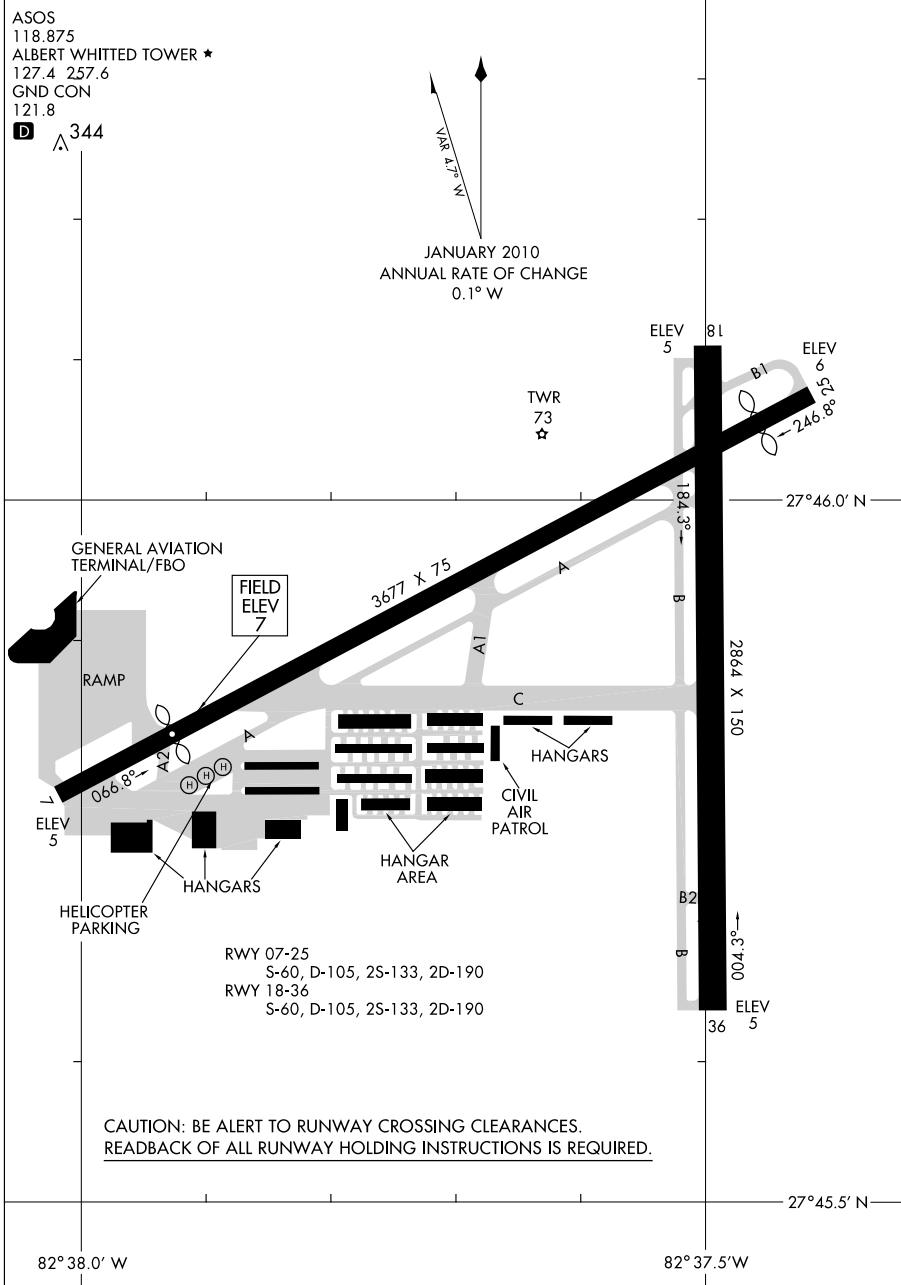
ROME/ RICHARD B. RUSSELL (RMG)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-613 (FAA)

ST. PETERSBURG/ALBERT WHITTET (SPG)
ST. PETERSBURG, FLORIDA

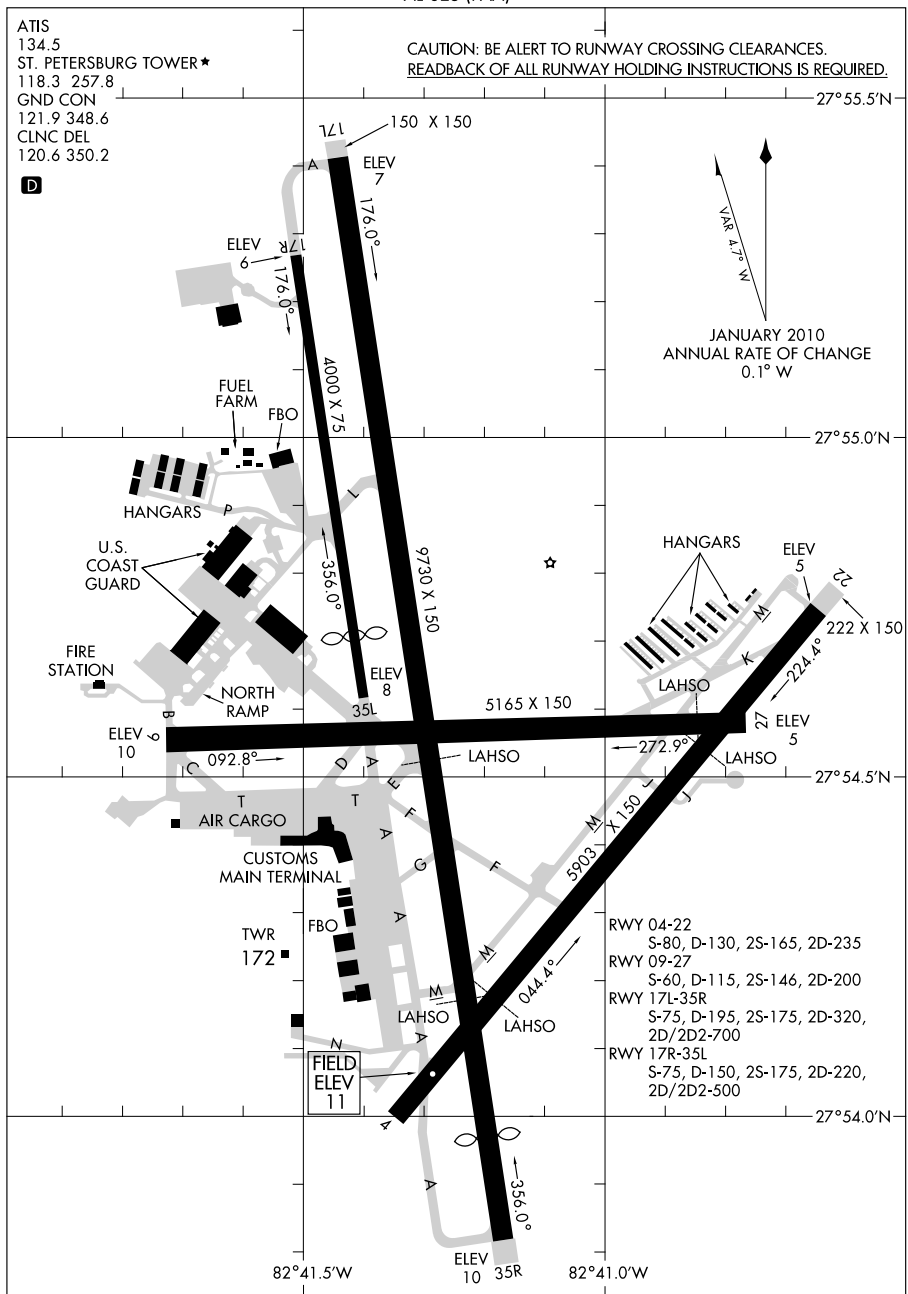


AIRPORT DIAGRAM

ST. PETERSBURG, FLORIDA
ST. PETERSBURG/ALBERT WHITTET (SPG)

AIRPORT DIAGRAM

ST. PETERSBURG-CLEARWATER INTL (PIE)
ST. PETERSBURG-CLEARWATER, FLORIDA

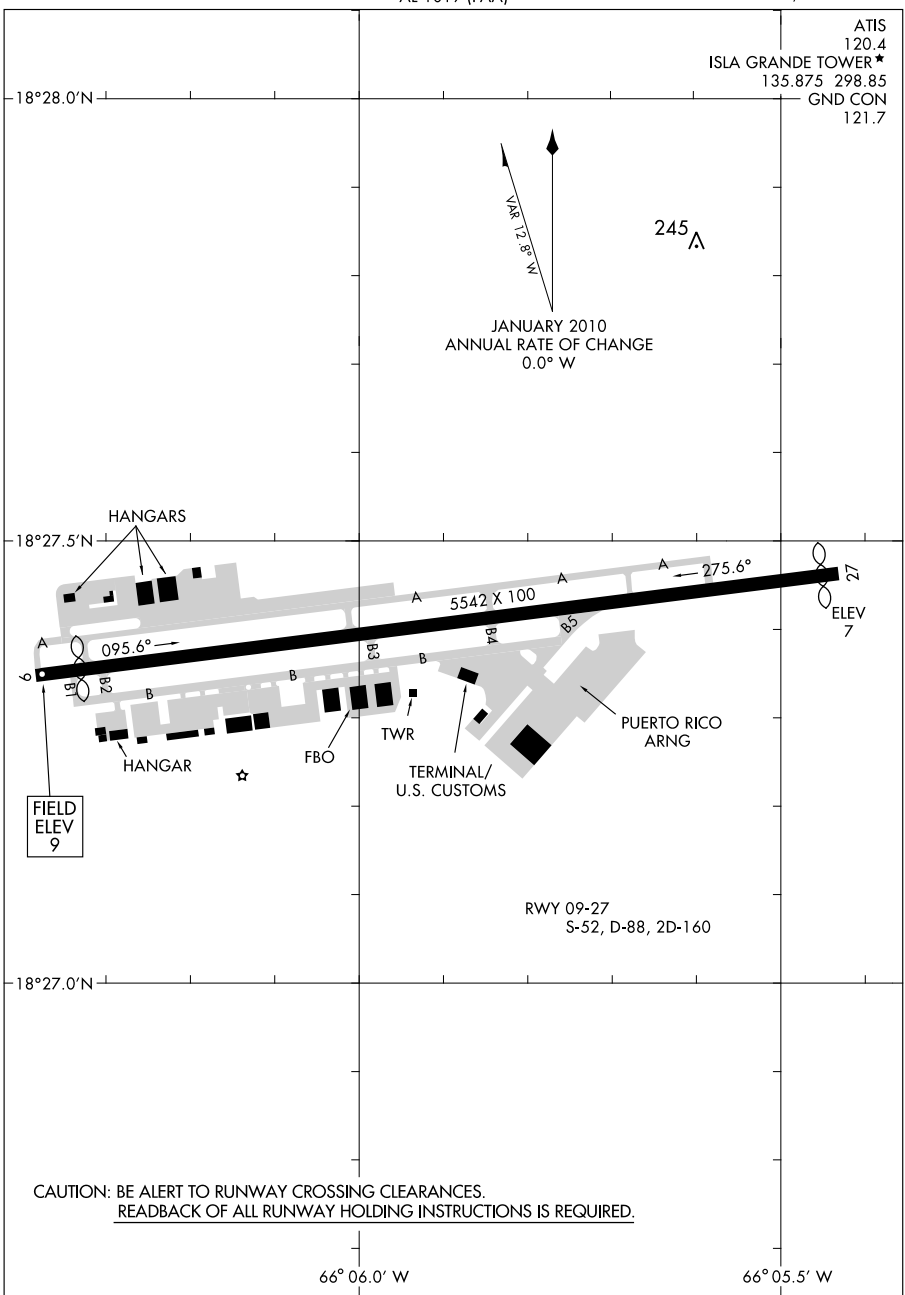


AIRPORT DIAGRAM

ST. PETERSBURG-CLEARWATER, FLORIDA
ST. PETERSBURG-CLEARWATER INTL (PIE)

10266
AIRPORT DIAGRAM

SAN JUAN/ FERNANDO LUIS RIBAS DOMINICCI (SIG)(TJIG)
AL-1019 (FAA) SAN JUAN, PUERTO RICO



10266
AIRPORT DIAGRAM

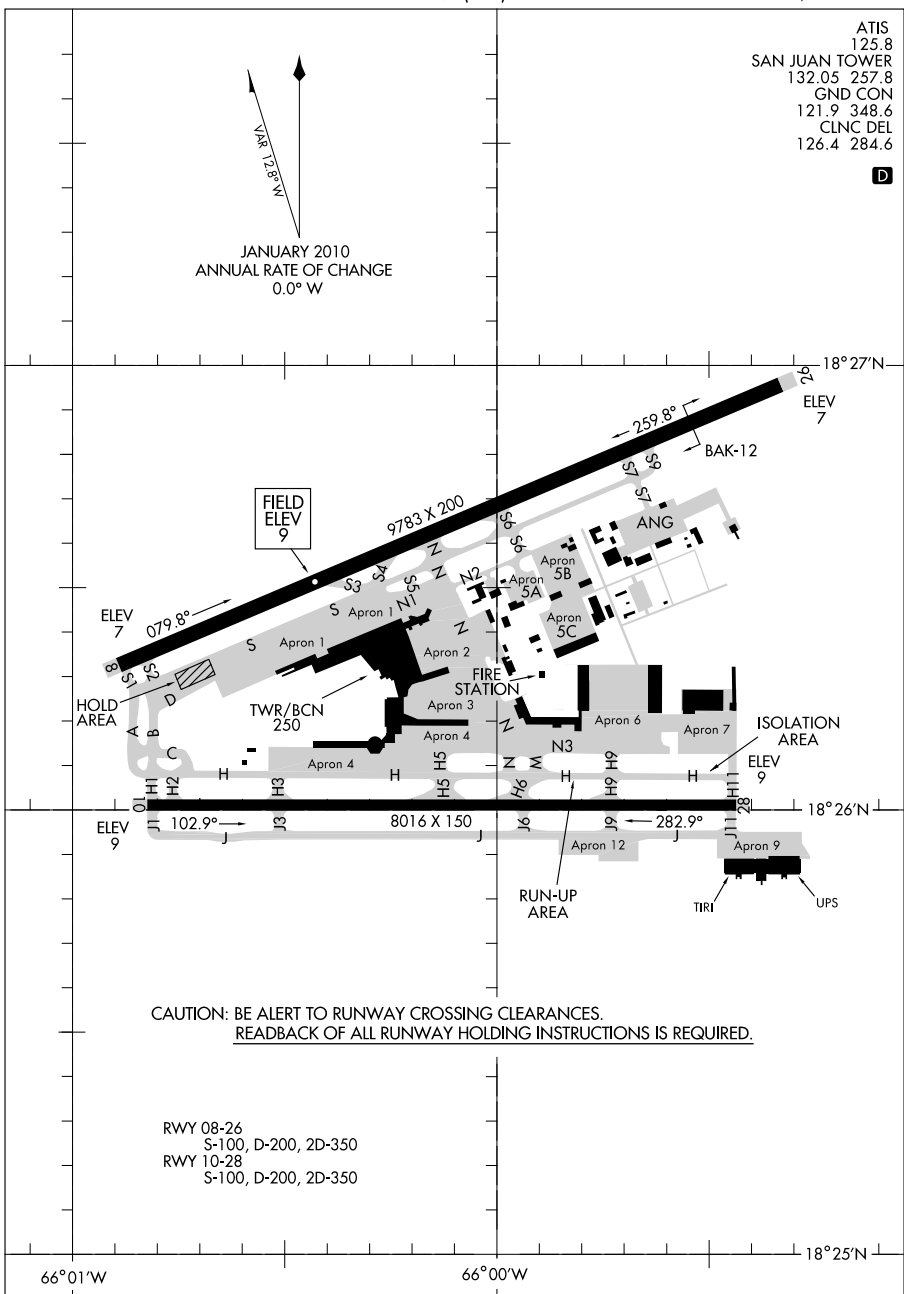
SAN JUAN, PUERTO RICO
SAN JUAN/ FERNANDO LUIS RIBAS DOMINICCI (SIG)(TJIG)

10210

AIRPORT DIAGRAM

SAN JUAN/ LUIS MUNOZ MARIN INTL (SJU)(TJSJ)
AL-784 (FAA)

SAN JUAN, PUERTO RICO



AIRPORT DIAGRAM

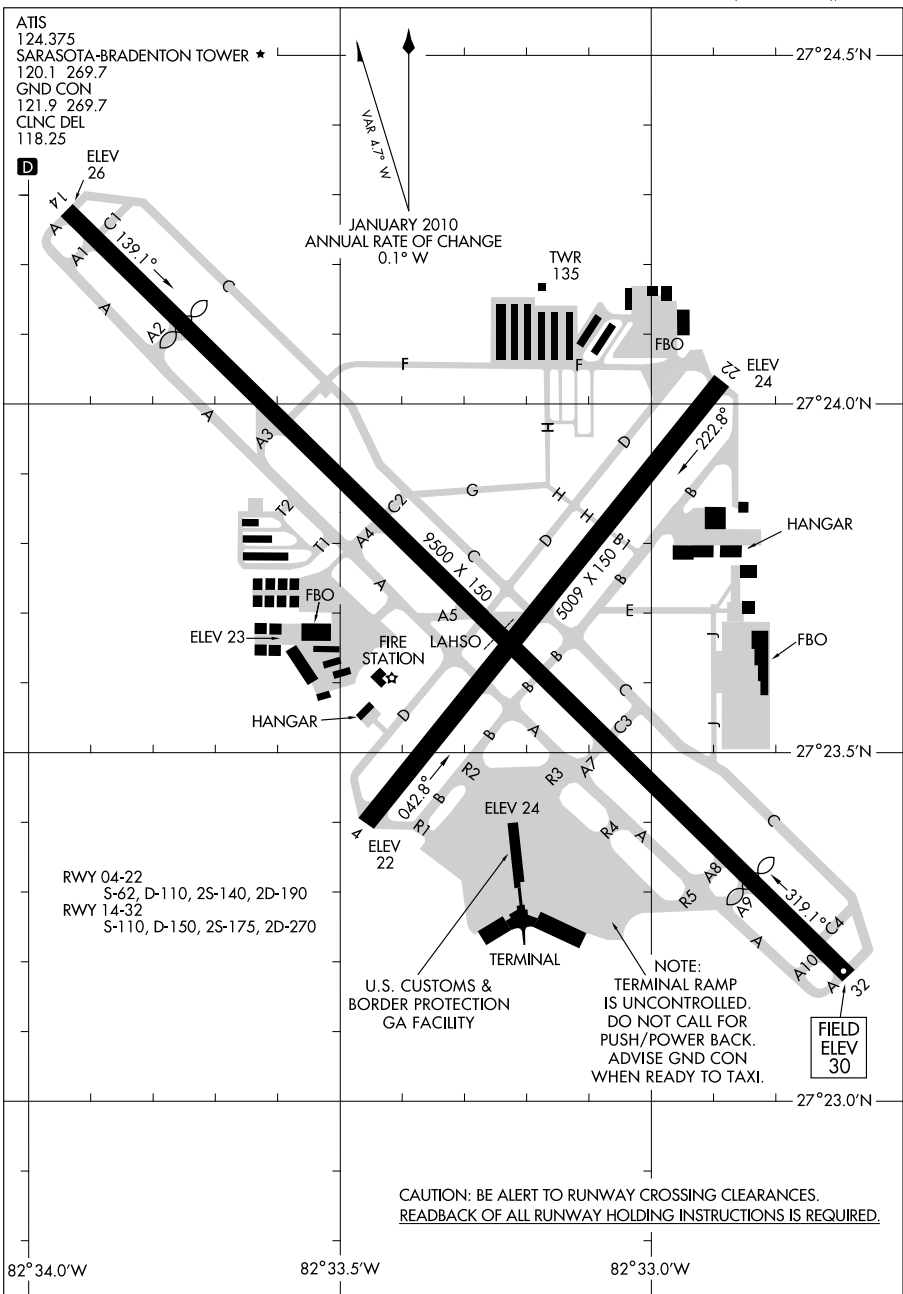
10210

SAN JUAN, PUERTO RICO
SAN JUAN/ LUIS MUNOZ MARIN INTL (SJU)(TJSJ)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

SARASOTA/BRADENTON INTL (SRQ)
SARASOTA (BRADENTON), FLORIDA

AIRPORT DIAGRAM

10210

SARASOTA (BRADENTON), FLORIDA
SARASOTA/BRADENTON INTL (SRQ)

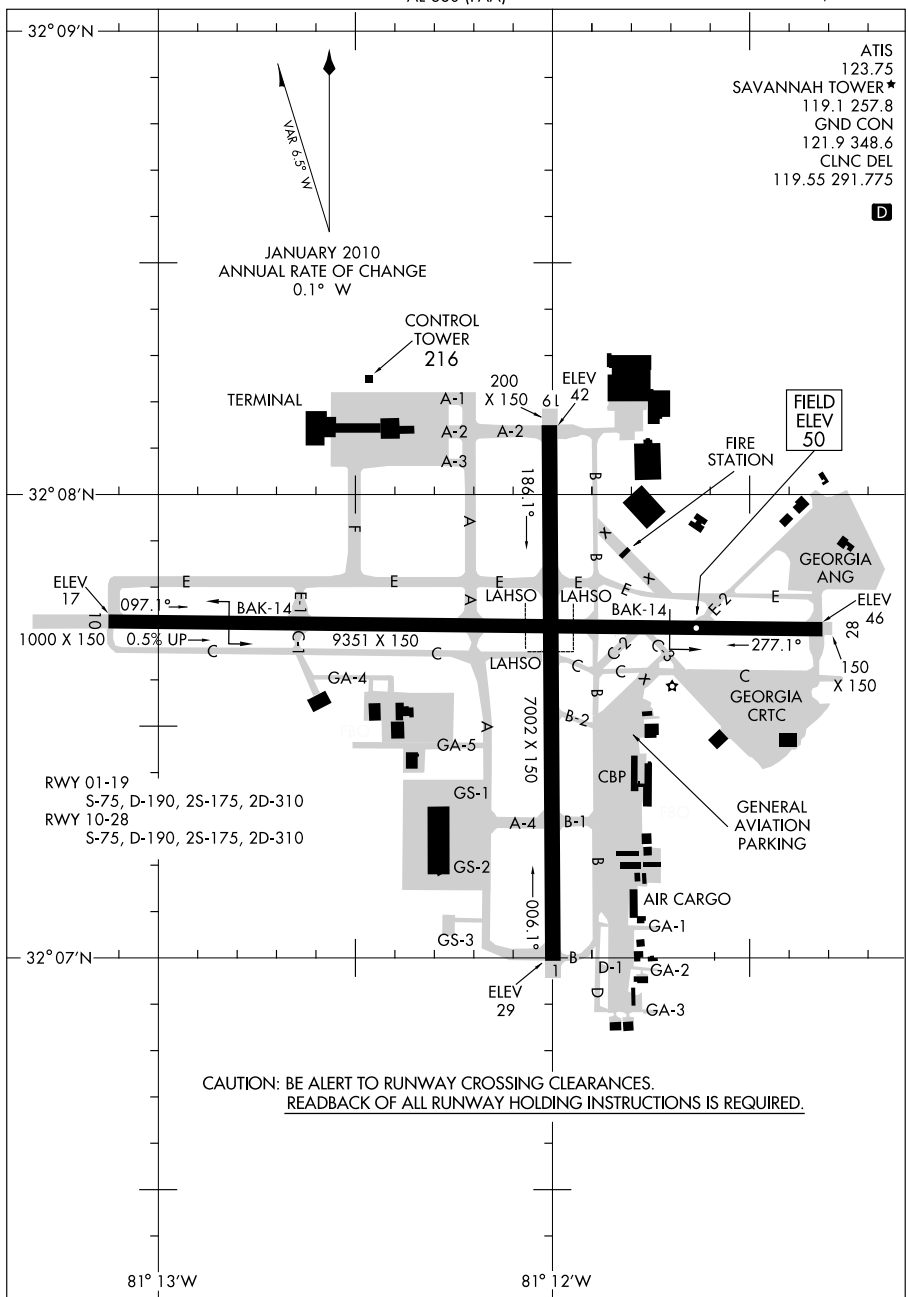
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-380 (FAA)

SAVANNAH/HILTON HEAD INTL (SAV)
SAVANNAH, GEORGIA



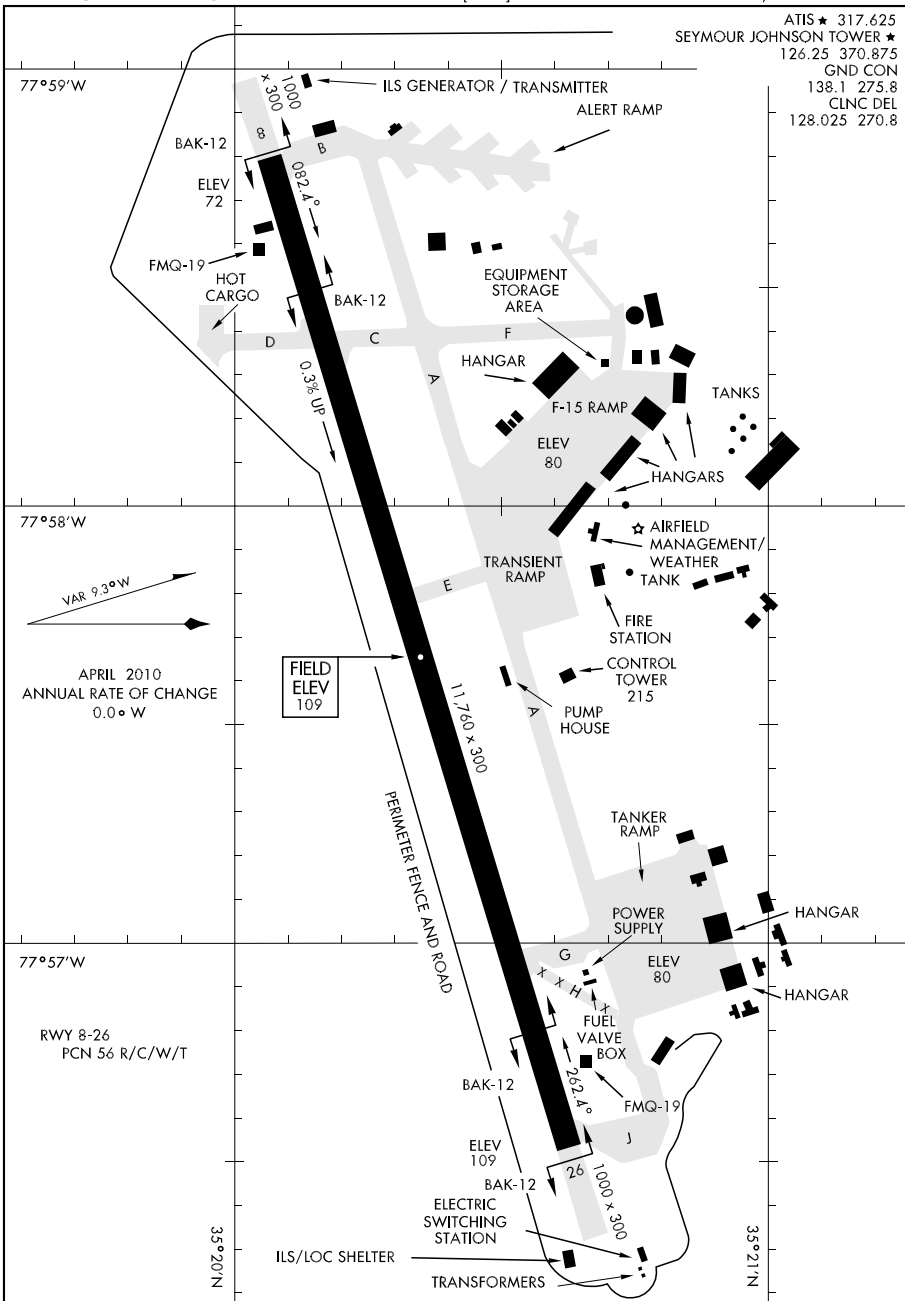
10098

AIRPORT DIAGRAM

AFD-169 [USAF]

SEYMOUR JOHNSON AFB (KGSB)

GOLDSBORO, NORTH CAROLINA



AIRPORT DIAGRAM

GOLDSBORO, NORTH CAROLINA

SEYMOUR JOHNSON AFB (KGSB)

SE. 23 SEP 2010 to 18 NOV 2010

SHAW AFB (KSSC)

AFD-409 [USAF]

SUMTER, SOUTH CAROLINA



SUMTER, SOUTH CAROLINA
SHAW AFB (KSSC)

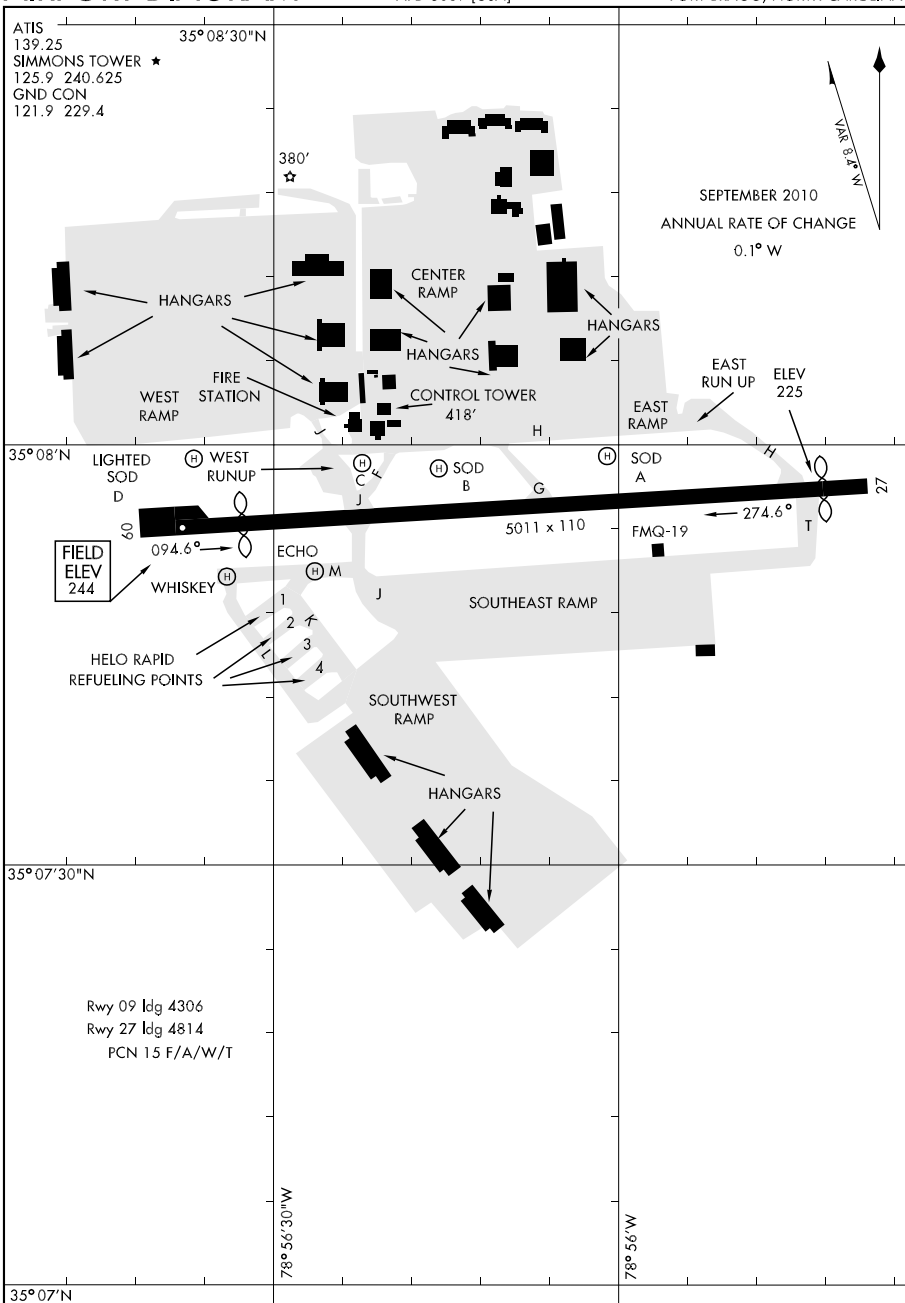
SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

AFD-5069 [USA]

SIMMONS AAF (KFBG)
FORT BRAGG, NORTH CAROLINA



AIRPORT DIAGRAM

FORT BRAGG, NORTH CAROLINA
SIMMONS AAF (KFBG)

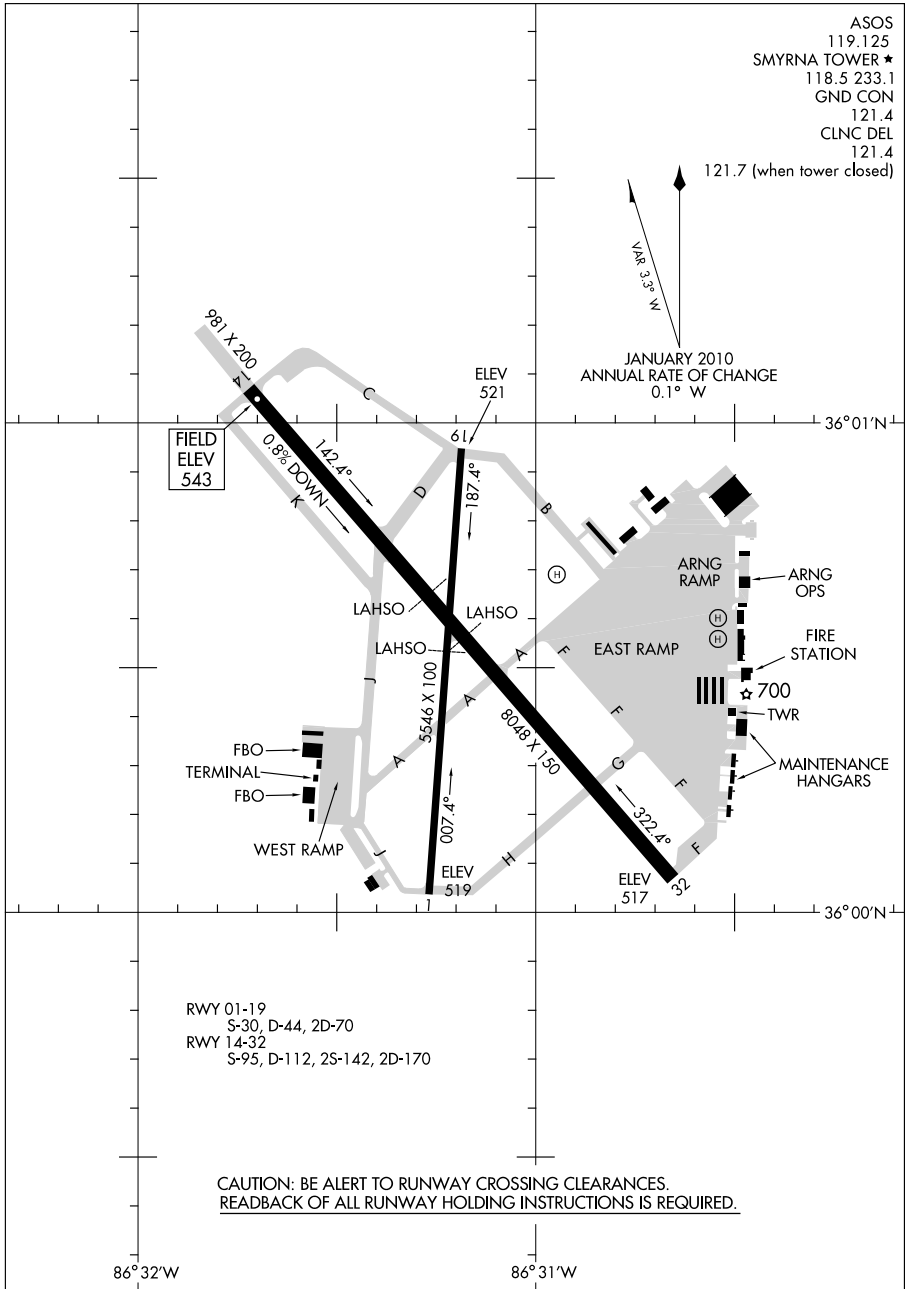
SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-895 (FAA)

SMYRNA (MQY)
SMYRNA, TENNESSEE



AIRPORT DIAGRAM

10210

SMYRNA, TENNESSEE
SMYRNA (MQY)

SE. 23 SEP 2010 to 18 NOV 2010

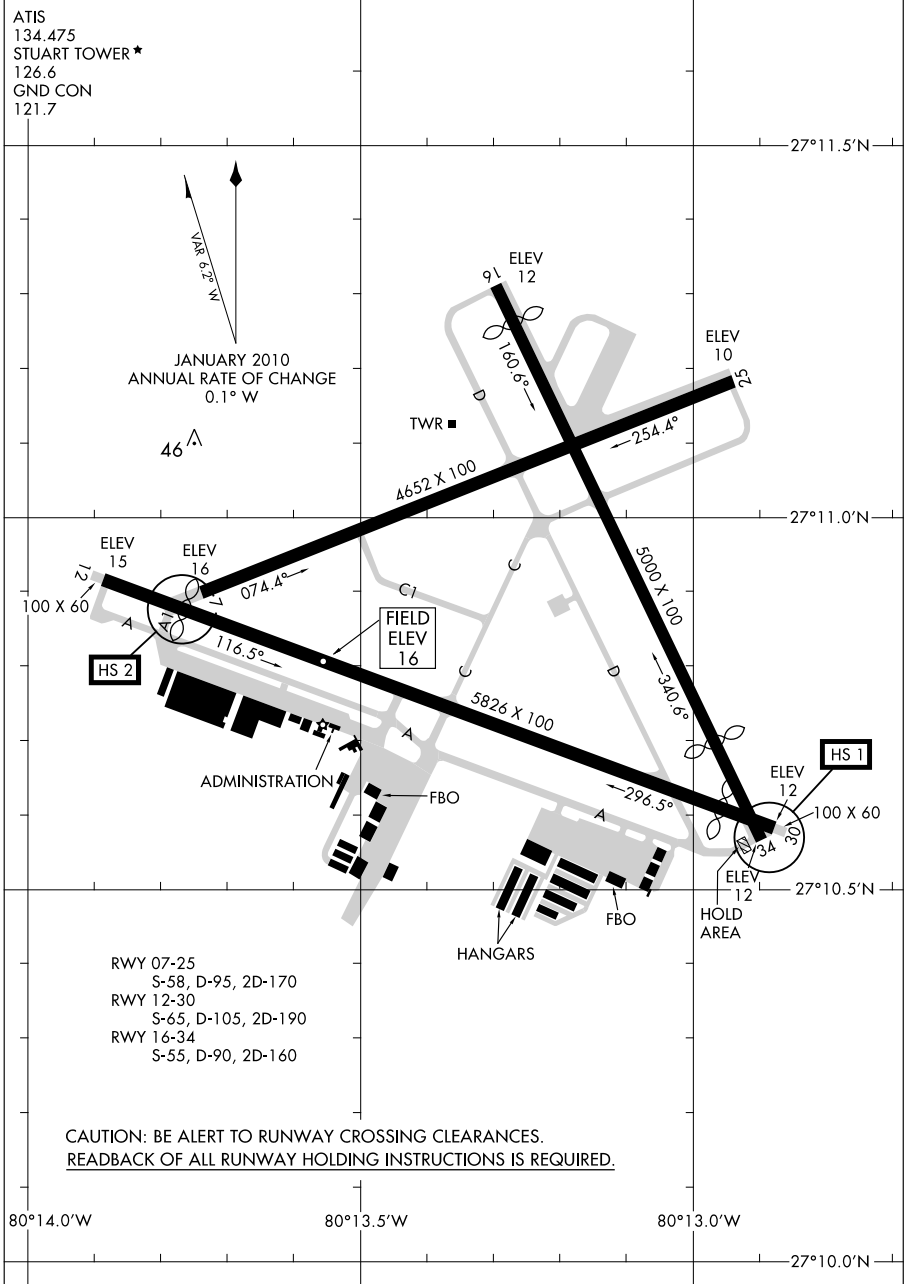
10266

AIRPORT DIAGRAM

AL-9217 (FAA)

STUART/WITHAM FIELD (SUA)

STUART, FLORIDA



AIRPORT DIAGRAM

10266

STUART, FLORIDA
STUART/WITHAM FIELD (SUA)

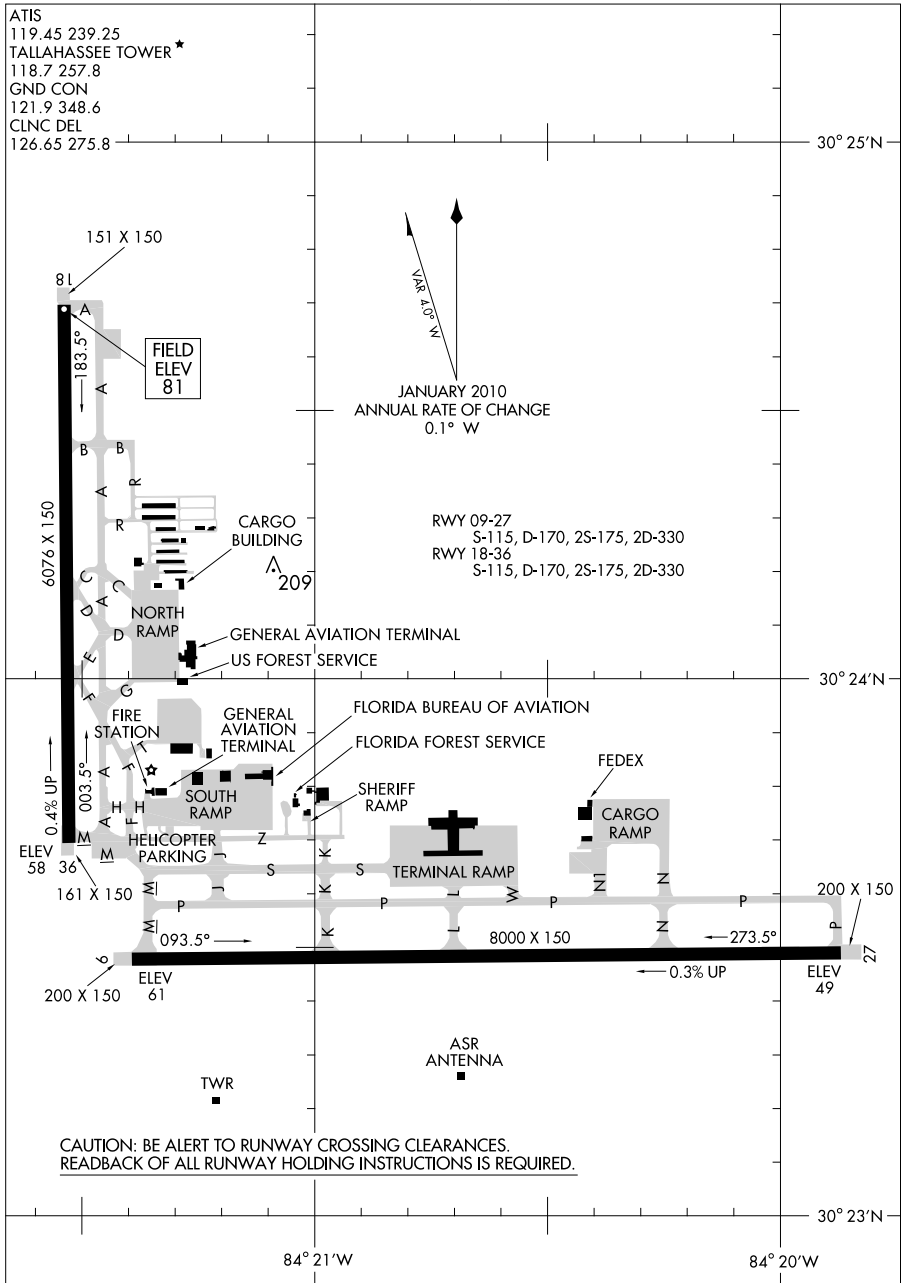
SE. 23 SEP 2010 to 18 NOV 2010

10266

AIRPORT DIAGRAM

AL-5048 (FAA)

TALLAHASSEE RGNL (TLH)
TALLAHASSEE, FLORIDA



AIRPORT DIAGRAM

TALLAHASSEE, FLORIDA
TALLAHASSEE RGNL (TLH)

10266

SE. 23 SEP 2010 to 18 NOV 2010

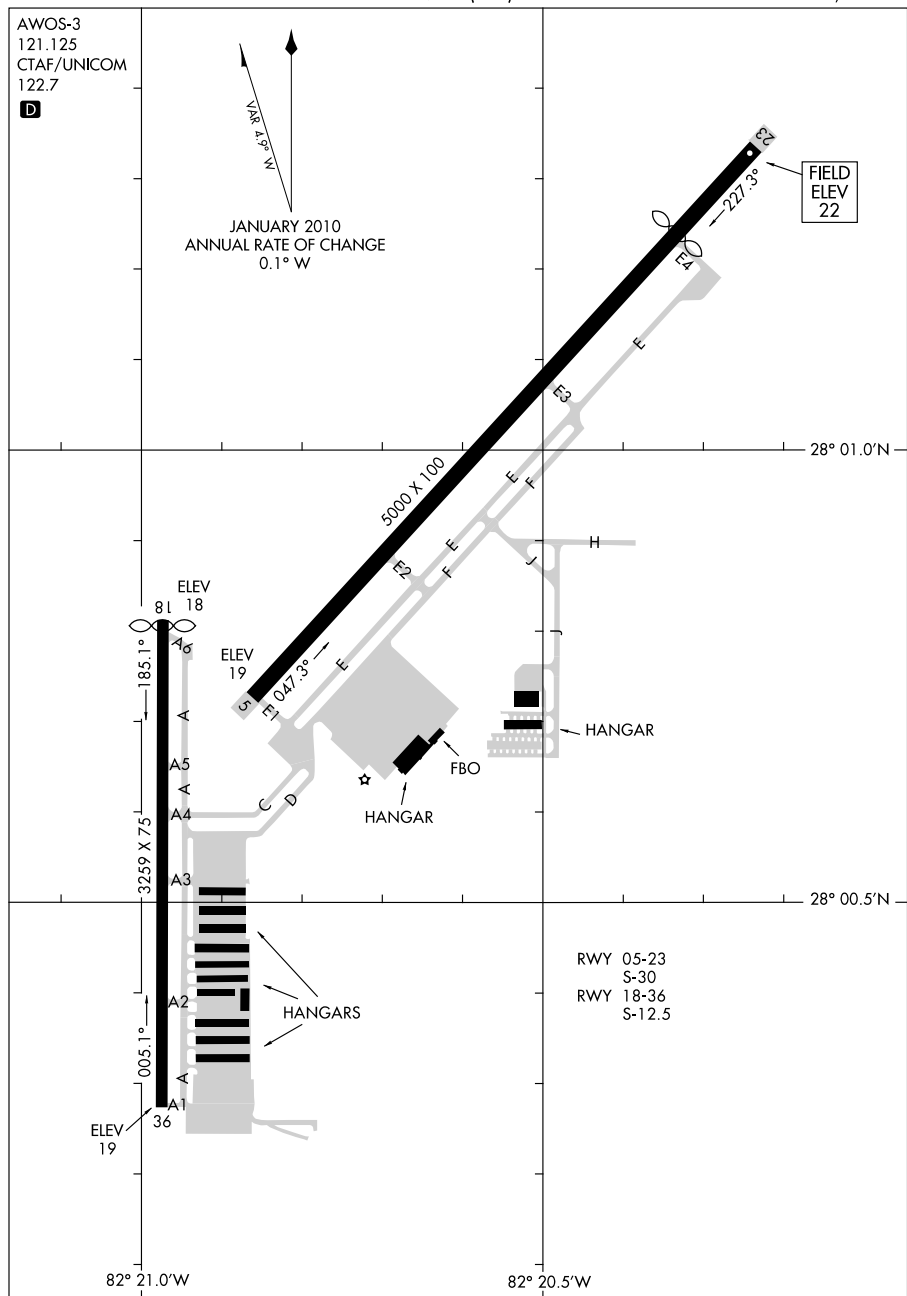
10210

AIRPORT DIAGRAM

AL-9241 (FAA)

TAMPA EXECUTIVE (VDF)

TAMPA, FLORIDA



AIRPORT DIAGRAM

10210

TAMPA, FLORIDA

TAMPA EXECUTIVE (VDF)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

TAMPA, FLORIDA

AL-416 (FAA)

-28° 00' N

ATIS ARR 126.45
DEP 128.475
TAMPA TOWER
119.5 269.4
GND CON
121.7 269.4
CLNC DEL
133.6

D

JANUARY 2010
ANNUAL RATE OF CHANGE
0.1° W

-27°59'N

FIELD
ELEV
26

—GENERAL
AVIATION
PARKING

8'N

TAMPA, FLORIDA

TAMPA INTL (TPA)

**CAUTION: BE ALERT TO
RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY
HOLDING INSTRUCTIONS IS REQUIRED.**

RWY 09-27
S-75, D-200, 2S-175, 2D-280, 2D/2D2-380
RWY 18L-36R
S-60, D-210, 2S-175, 2D-358, 2D/2D2-850
RWY 18R-36L
S-60, D-210, 2S-175, 2D-358, 2D/2D2-850

82°32'W

82°31'W

AIRPORT DIAGRAM

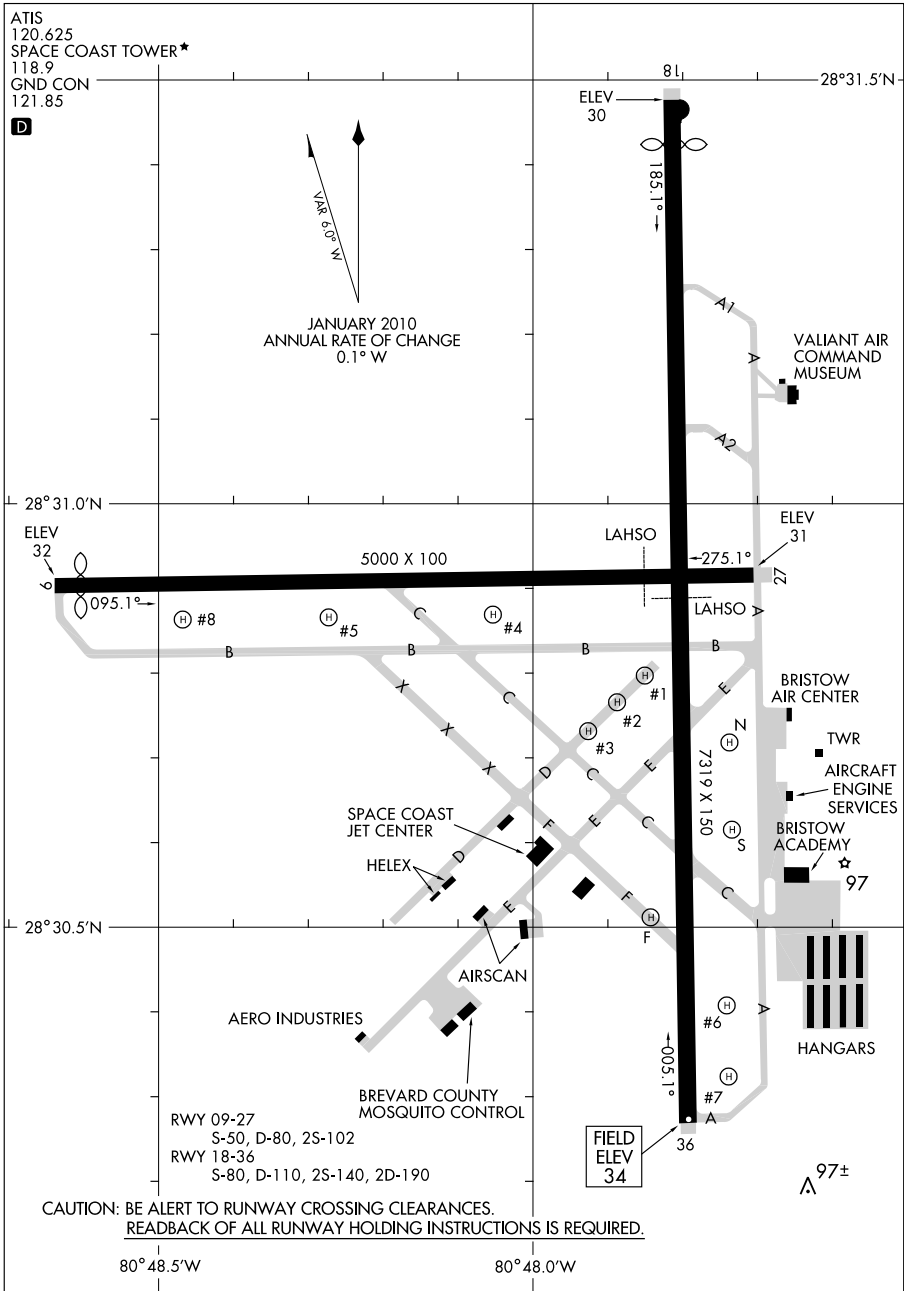
10210

SE, 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

AL-5760 (FAA)

TITUSVILLE/SPACE COAST RGNL (TIX)
TITUSVILLE, FLORIDA



AIRPORT DIAGRAM

TITUSVILLE, FLORIDA
TITUSVILLE/ SPACE COAST RGNL (TIX)

10210

SE. 23 SEP 2010 to 18 NOV 2010

10266

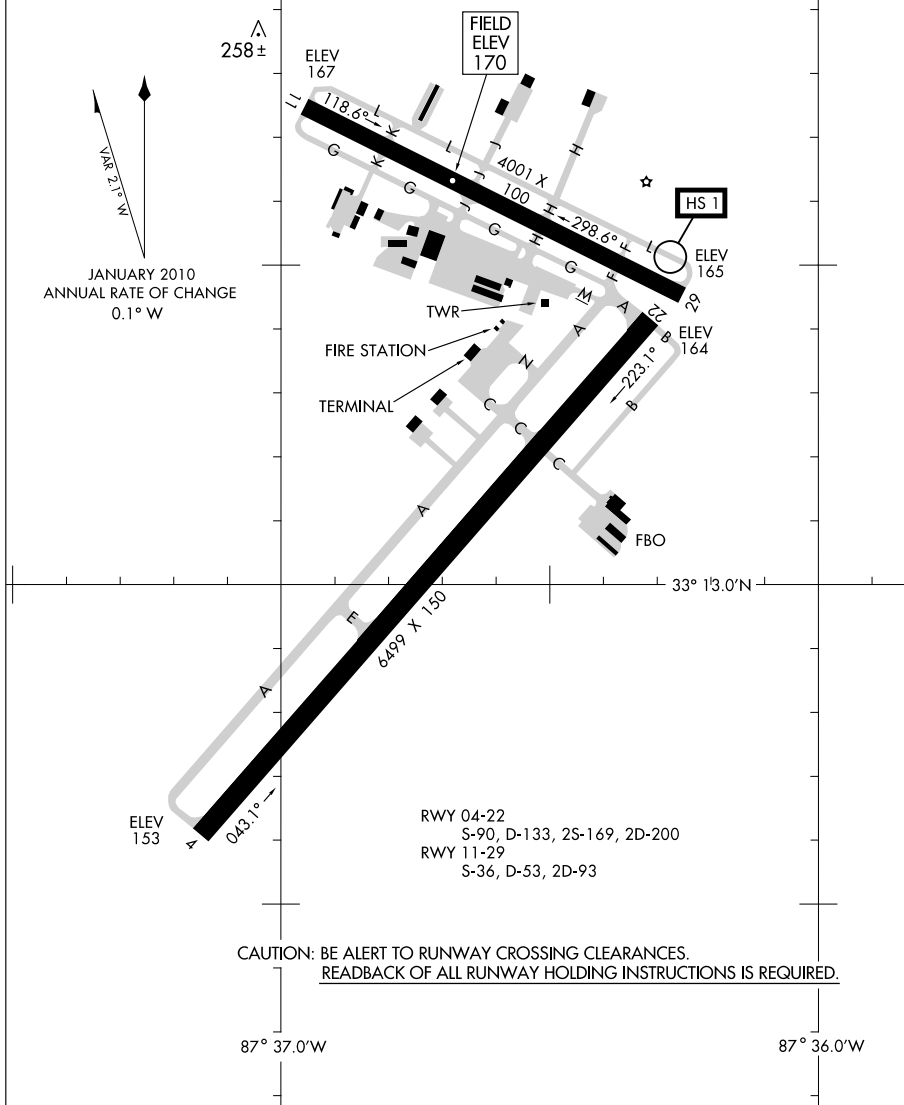
AIRPORT DIAGRAM

AL-487 (FAA)

TUSCALOOSA RGNL (TCL)

TUSCALOOSA, ALABAMA

ASOS
132.825
TUSCALOOSA TOWER*
126.3 256.7
GND CON
121.8 257.95



AIRPORT DIAGRAM

10266

TUSCALOOSA, ALABAMA

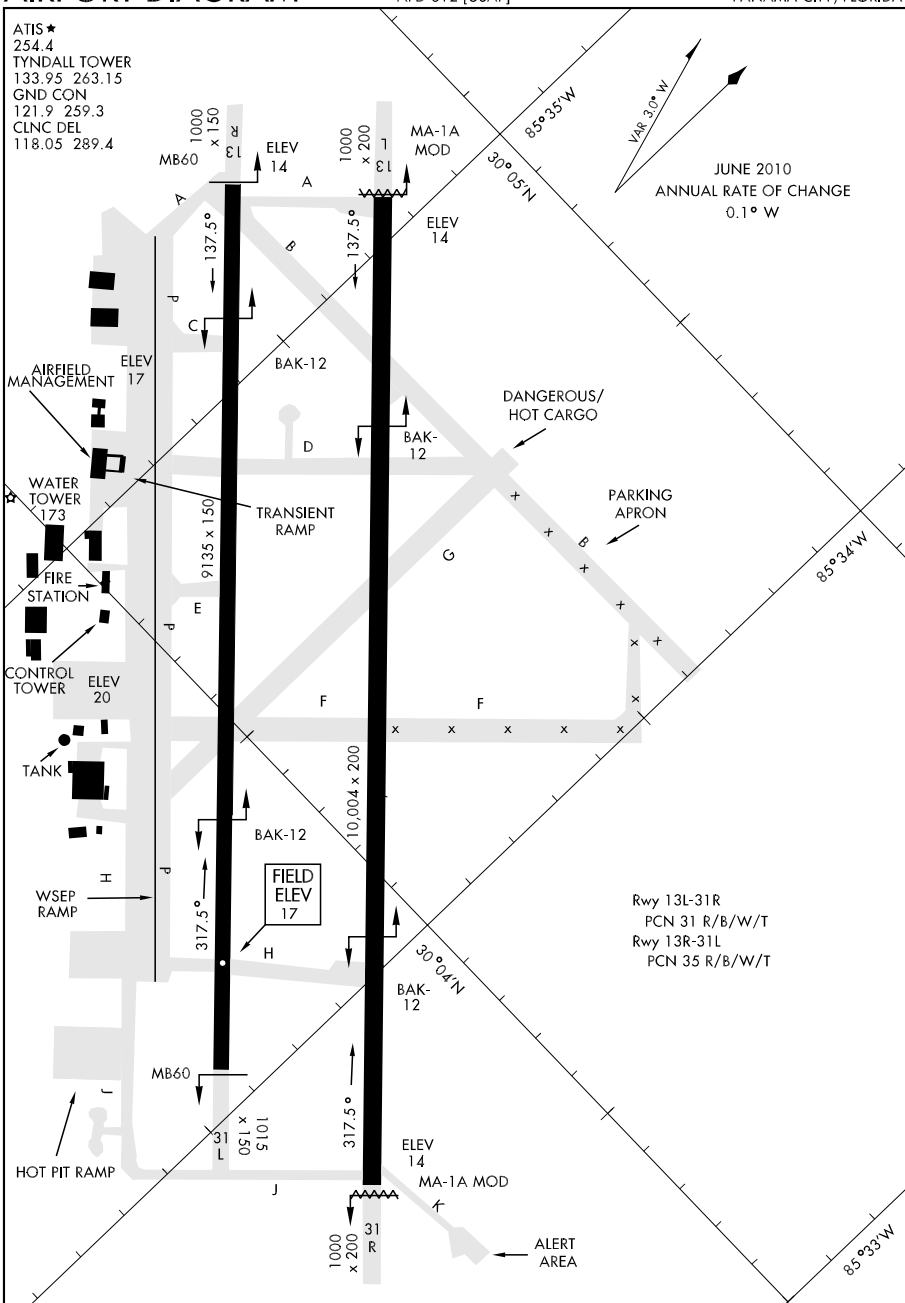
TUSCALOOSA RGNL (TCL)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

PANAMA CITY, FLORIDA

AFD-312 [USAF]



AIRPORT DIAGRAM

TYNDALL AFB (KPAM)

SE. 23 SEP 2010 to 18 NOV 2010

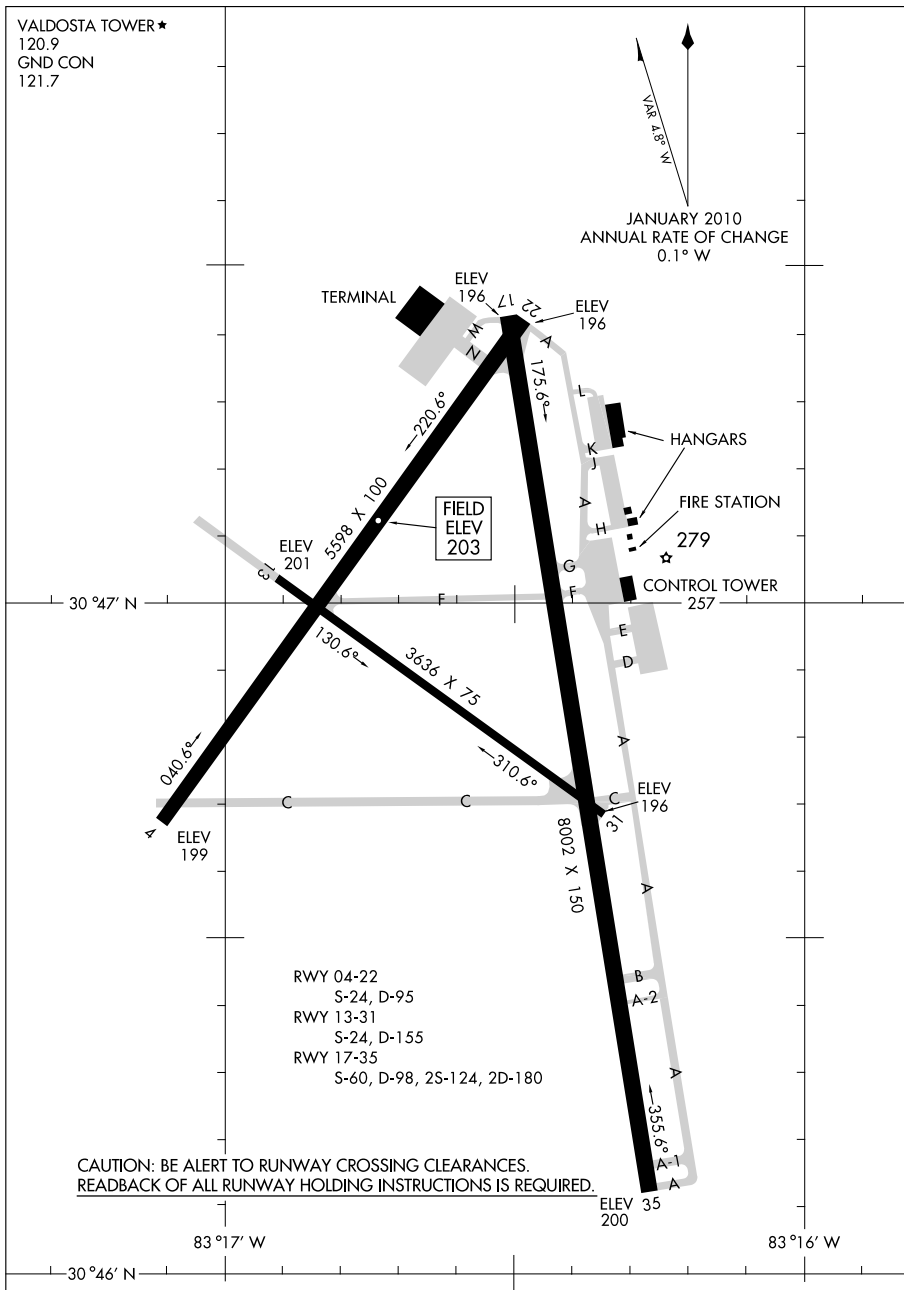
10210

AIRPORT DIAGRAM

AL-892 (FAA)

VALDOSTA RGNL (VLD)

VALDOSTA, GEORGIA



AIRPORT DIAGRAM

10210

VALDOSTA, GEORGIA
VALDOSTA RGNL (VLD)

SE. 23 SEP 2010 to 18 NOV 2010

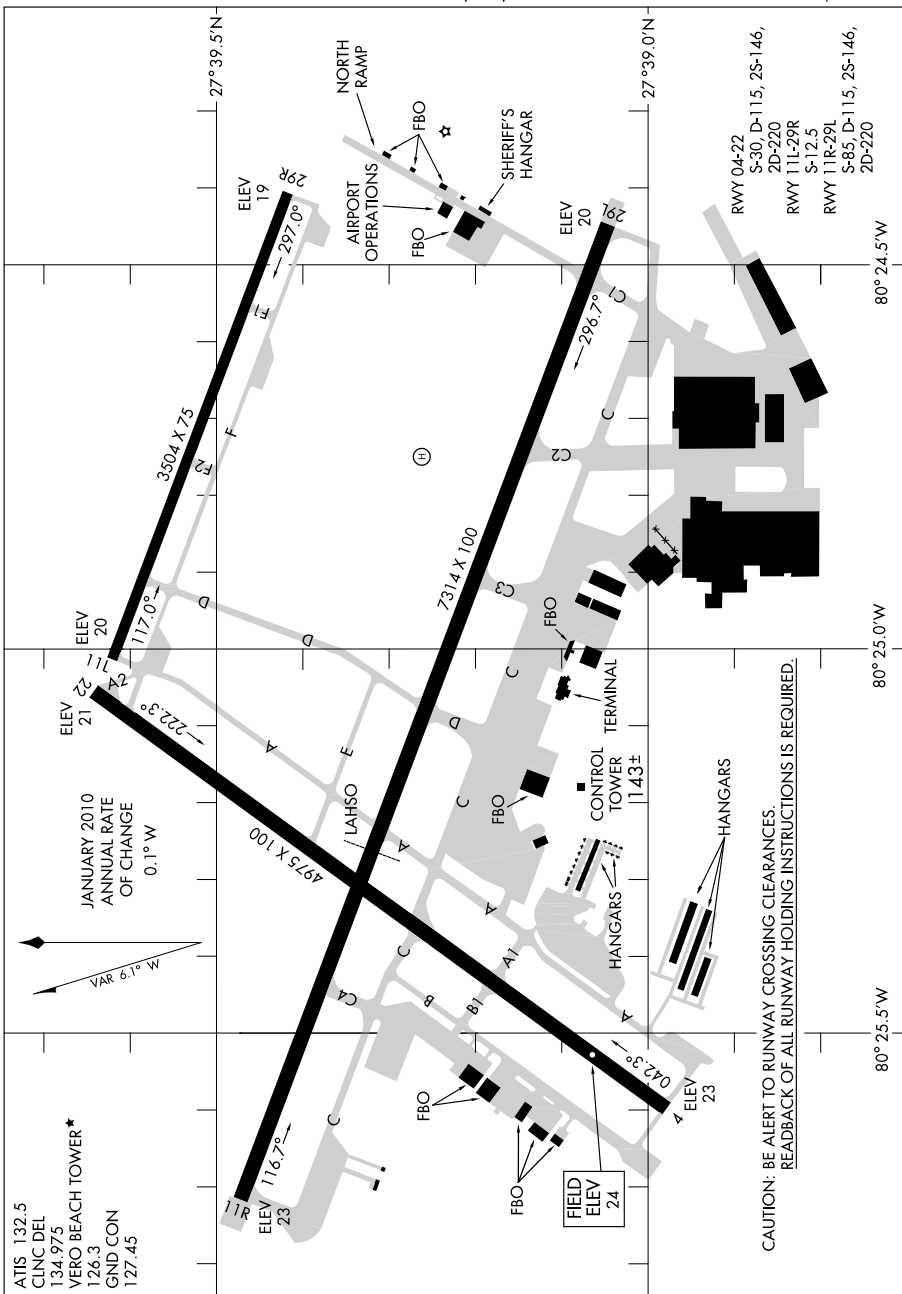
10210

AIRPORT DIAGRAM

AL-437 (FAA)

VERO BEACH MUNI (VRB)

VERO BEACH, FLORIDA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

10210

VERO BEACH, FLORIDA

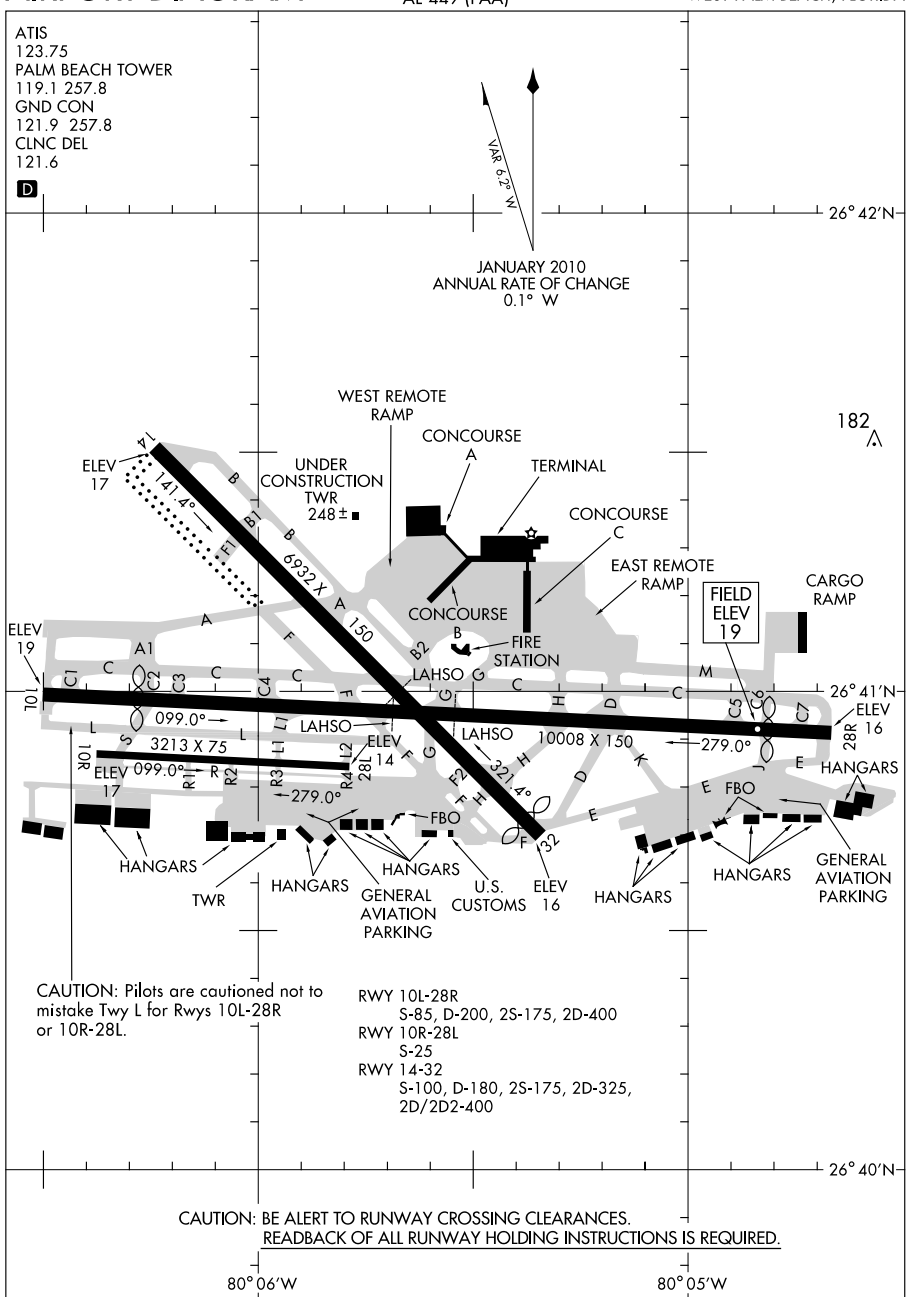
VERO BEACH MUNI (VRB)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

WEST PALM BEACH, FLORIDA

AL-449 (FAA)



AIRPORT DIAGRAM

WEST PALM BEACH, FLORIDA
WEST PALM BEACH/PALM BEACH INTL (PBI)

10266

SE, 23 SEP 2010 to 18 NOV 2010

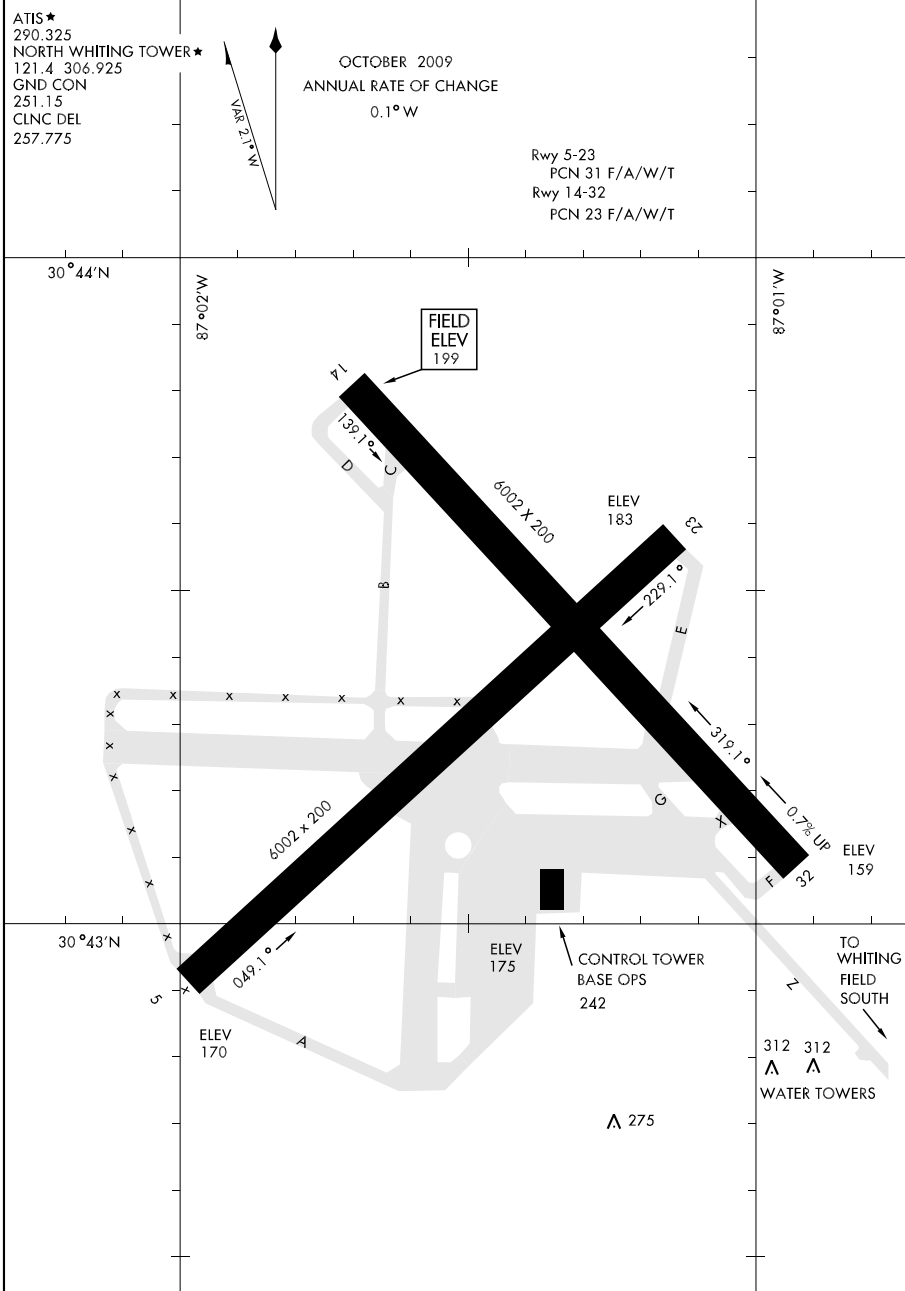
09295

AIRPORT DIAGRAM

AFD-602 [USN]

WHITING FLD NAS (NORTH) (KNSE)

MILTON, FLORIDA



AIRPORT DIAGRAM

MILTON, FLORIDA

WHITING FLD NAS (NORTH) (KNSE)

SE. 23 SEP 2010 to 18 NOV 2010

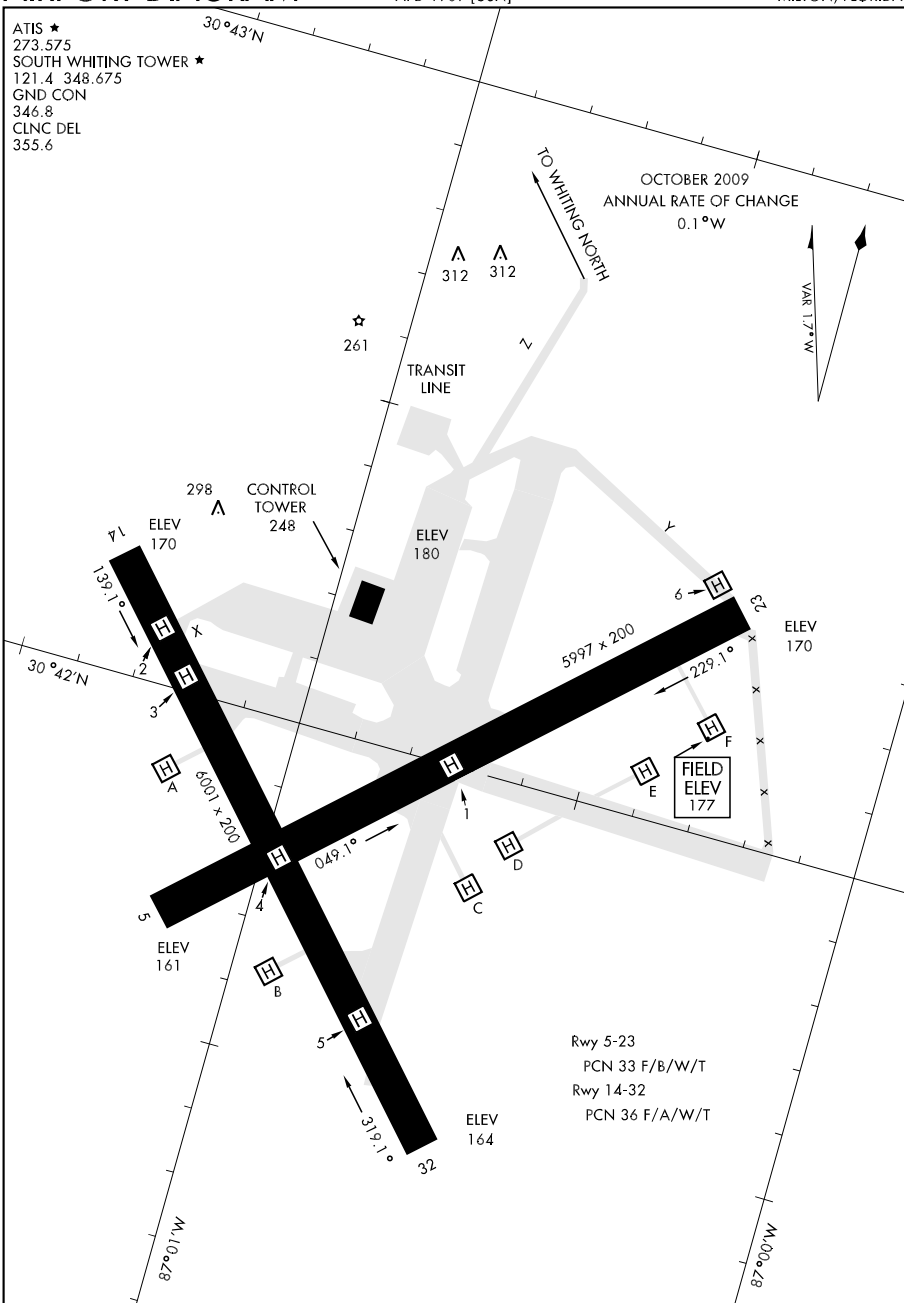
09295

WHITING FLD NAS (SOUTH) (KNDZ)

MILTON, FLORIDA

AIRPORT DIAGRAM

AFD-1909 [USN]



AIRPORT DIAGRAM

MILTON, FLORIDA

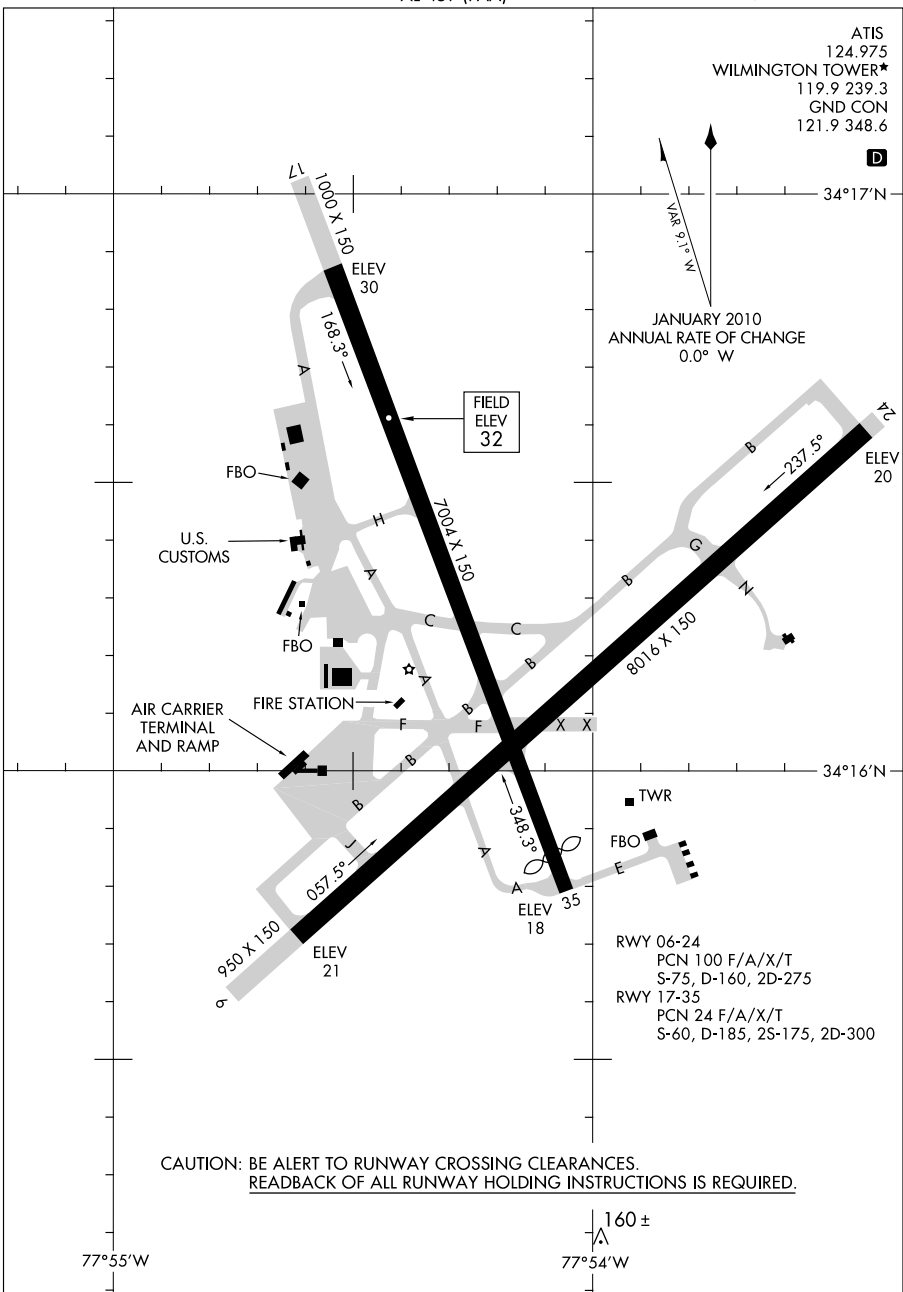
WHITING FLD NAS (SOUTH) (KNDZ)

SE. 23 SEP 2010 to 18 NOV 2010

10210

AIRPORT DIAGRAM

AL-459 (FAA)

WILMINGTON INTL (ILM)
WILMINGTON, NORTH CAROLINA

AIRPORT DIAGRAM

10210

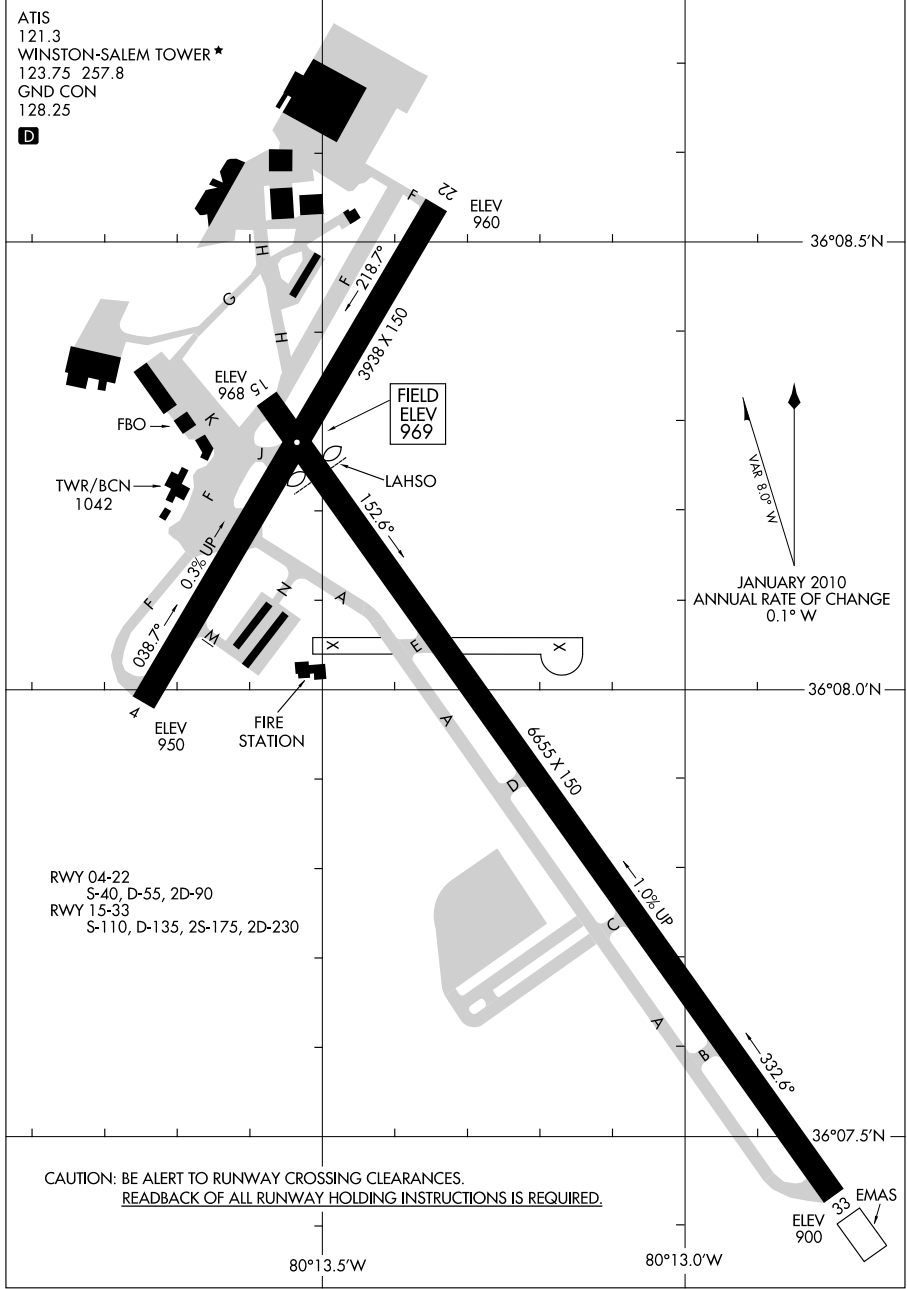
WILMINGTON, NORTH CAROLINA
WILMINGTON INTL (ILM)

SE. 23 SEP 2010 to 18 NOV 2010

AIRPORT DIAGRAM

WINSTON-SALEM /SMITH REYNOLDS (INT)
WINSTON-SALEM, NORTH CAROLINA

AL-463 (FAA)

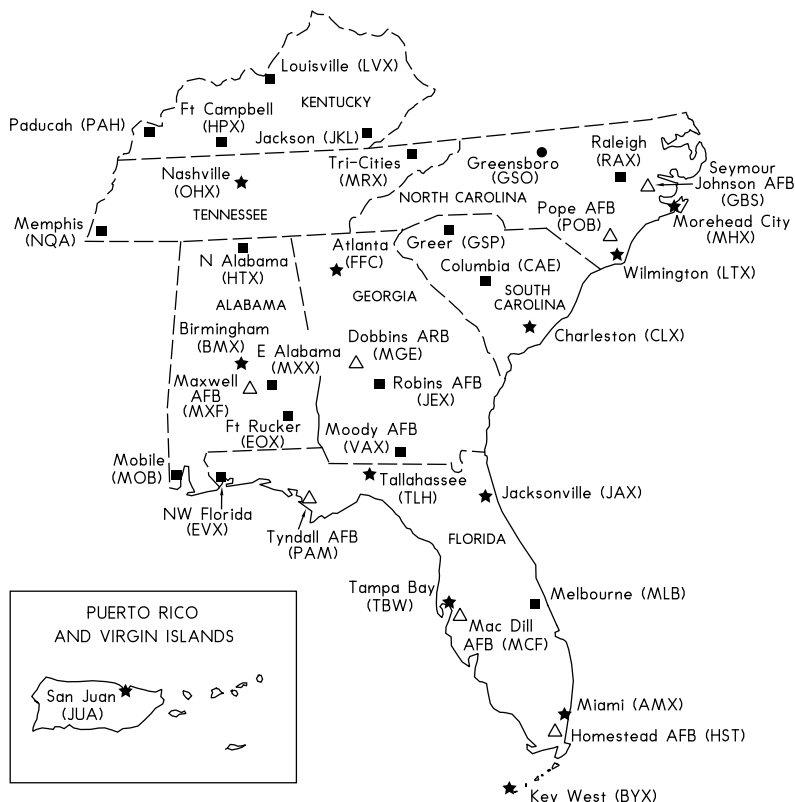


AIRPORT DIAGRAM

WINSTON-SALEM, NORTH CAROLINA
WINSTON-SALEM /SMITH REYNOLDS (INT)

**INTENTIONALLY
LEFT
BLANK**

NATIONAL WEATHER SERVICE (NWS) UPPER AIR OBSERVING STATIONS (UAOS) AND WEATHER RADAR NETWORK



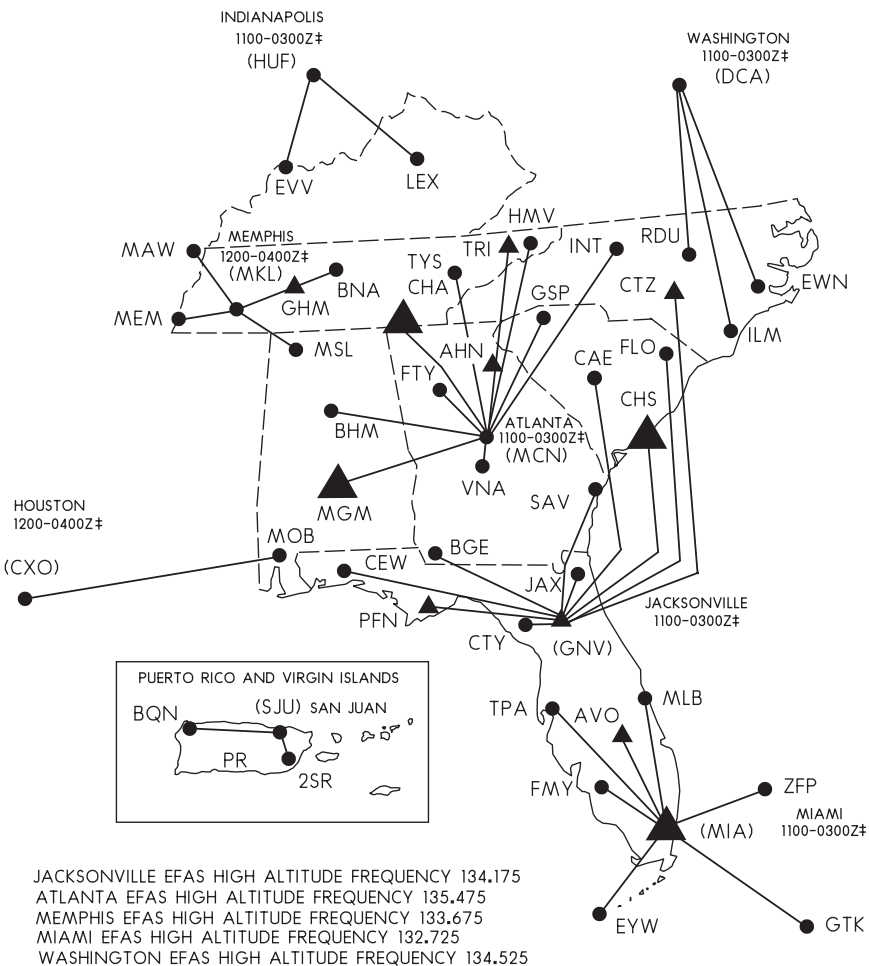
LEGEND

- △ AVIATION WEATHER SERVICE (MILITARY)
- ▲ AIR TRAFFIC CONTROL RADAR
- ★ UPPER AIR OBSERVING STATION/RADAR
- RADAR ONLY
- UAOS-BALLOON RELEASE AROUND 1100 UTC AND 2300 UTC DAILY
- OTHER NWS UPPER AIR STATIONS-BALLOON RELEASE TIMES ARE FLEXIBLE BUT GENERALLY AROUND SUNRISE AND/OR EARLY AFTERNOON

NOTE: FOR RELEASE LATER THAN 1130 UTC AND 2330 UTC, AND FOR SPECIAL RELEASES AT OTHER THAN THE SCHEDULED HOURS, AN AERONAUTICAL INFORMATION MESSAGE WILL BE FILED.

ENROUTE FLIGHT ADVISORY SERVICE (EFAS)

See Aeronautical Information Manual (AIM) for available services



- LOW ALTITUDE COMMUNICATIONS OUTLET (122.0)
- ▲ HIGH ALTITUDE COMMUNICATIONS OUTLET
- ▲ BOTH LOW AND HIGH ALTITUDE COMMUNICATIONS OUTLET